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# NORTHERN COUNTRIES IN WORLD ECONOMY

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DENMARK - FINLAND - ICELAND - NORWAY - SWEDEN

PUBLISHED BY THE
DELEGATIONS FOR THE PROMOTION OF ECONOMIC CO-OPERATION BETWEEN THE NORTHERN COUNTRIES

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# PREFACE.

This book is published on the initiative and the authority of the Delegations which were established in 1934 by the respective Governments for the promotion of economic co-operation between the Northern Countries. The members nominated to these Delegations are representatives of different branches of economic life. Conferences between them have been held in the Northern Capitals in turn.

A great number of economic problems have been discussed at these conferences, and on the basis of the decisions arrived at steps have been taken for their realisation in practice. On many occasions the lack of a general survey of the position of the Northern Countries in World Economy was felt. Subsequently, the Delegations established an Editorial Committee to prepare such a survey, and as a result of their work this book is now published.

The present publication deals not only with the common economic problems of the Countries of the North and with co-operation between them; it is also in itself a manifestation of the spirit of co-operation among the Northern Nations.


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EYJAR
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FAROE ISLANDS

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CHAPTER I.

# THE NORTHERN COUNTRIES.

»The Northern Countries» — who invented that name?

It is difficult to tell. It is more easy to explain why the term is needed and what meaning it bears.

There are five countries in the North of Europe, five countries which have, though politically quite independent, so much in common, historically, culturally and economically, that they may claim the right to appear before the World under the name of »The Northern Countries of Europe» or, more shortly, »The Northern Countries». Their names are, in alphabetical order, Denmark, Finland, Iceland, Norway and Sweden.

It is the purpose of the present volume to show the significance of these countries in World economy.

We may begin with a short characterization of the five countries, mentioning at the same time some geographical and demographic facts of importance.

*Denmark* — the country of green fields, white-washed farmhouses and soft beech forests, with the peninsular Jutland, protruding from the Continent, washed by the North Sea on the west and the Cattegat on the east, and with the row of islands, major and minor, as a bridge over to the Scandinavian mainland. Population, 3.7 millions. Capital: København (Copenhagen), situated at the Sound on the east coast of Zealand, the largest of the Danish islands.

*Finland* — »the country of a thousand lakes», but also the country of mighty forests, with fertile land partly in plains along the coastlines, partly enclosed by the forests. The Baltic Sea

washes the shores in the west and south, while in the far north the country stretches up to the ever open Polar Sea. Population, 3.8 millions. Capital: Helsinki /Helsingfors, situated on the north coast of the Gulf of Finland, an eastern extension of the Baltic Sea.

*Iceland* — the Saga island in the North Atlantic, the north-western outpost of Europe, the country of hot springs, volcanos and glaciers and of vast green pastures, with immense fishing-grounds close by the coasts. Population, 117,000. Capital: Reykjavík, situated on the south-west coast of the great island.

*Norway* — the western part of the Scandinavian peninsular, the country of sky-high mountains, with mighty waterfalls, where the mountains meet the sea, with vast forests and with fields and meadows boldly climbing the sides of the valleys, the country with an immense coastline and rich fisheries outside it. The Skagerak is to the south, the Atlantic to the west and the Polar Sea to the north. Population, 2.9 millions. Capital: Oslo, situated at the upper end of the Oslo Fjord in the south-eastern part of the country.

*Sweden* — back to back with Norway, with the Skagerak and the Cattegat in the south-west, and on the east, along a coast-line of 1,000 miles, the Baltic Sea. Fertile plains here and there in

*Situation, Area and Population of the Northern Countries.*

| | Situation | Area Square kilometres | Population Total | Population Per square kilometre |
|---|---|---|---|---|
| Denmark | 54° 34′ to 57° 45′ N.<br>8° 5′ to 15° 12′ E. | 42 931 | 3 705 559 | 86.3 |
| Finland | 59° 30′ to 70° 6′ N.<br>19° 7′ to 32° 49′ E. | 382 801 | 3 787 000 | 9.9 |
| Iceland | 63° 24′ to 66° 32′ N.<br>13° 30′ to 24° 32′ W. | 104 000 | 117 000 | 1.1 |
| Norway | 57° 58′ to 71° 11′ N.<br>4° 30′ to 31° 10′ E. | 322 599 | 2 895 000 | 9.0 |
| Sweden | 55° 20′ to 69° 4′ N.<br>10° 58′ to 24° 10′ E. | 448 953 | 6 249 489 | 13.9 |

Excluding the Faroe Islands, constitutionally a Danish county (area 1,400 sq. kilometres, population 26,000), and Svalbard (Spitsbergen Islands), constitutionally a part of Norway (area 62,920 sq. kilometres, population 2,500). Greenland is a Danish colony. Norwegian possessions are: Jan Mayen Island (in the North Atlantic Ocean), Bouvet Island and Peter I's Island (in the Antarctic Ocean).

the southern and central parts, elsewhere forests and more forests, except in the north-west, where snowclad mountains rise. Iron in the earth, whole mountains of it, in the far north. Population, 6.2 millions. Capital: Stockholm, situated on the east coast, on the Baltic Sea.

*Some historical notes.*

It was comparatively late that the Northern Countries made their entry into history. Civilisation had long flourished in the Mediterranean countries when stray seafarers returned there with the news of previously unknown lands in the far North. What these bold sea rovers had to relate was probably a mixture of fact and fancy. Their journeys along the forest-clad shores in the north did not give them much information concerning the life that was lived inland.

If they had ventured into the interior and made a closer acquaintance with the people who lived there, they would have found, not tribes of savages living by hunting and fishing, but a settled population with a community life already well-developed and with agriculture and live-stock as their means of livelihood. They would also have found that those countries on the edge of beyond were by no means shut off from the rest of the world. For slowly but surely the civilisation of the more southerly lands had penetrated to the countries of the North. Gradually they had come to share in what was elsewhere the last word in technical progress. They marched with the times when bronze became the material for implements and weapons, and they were still abreast of the times when iron took the place of bronze.

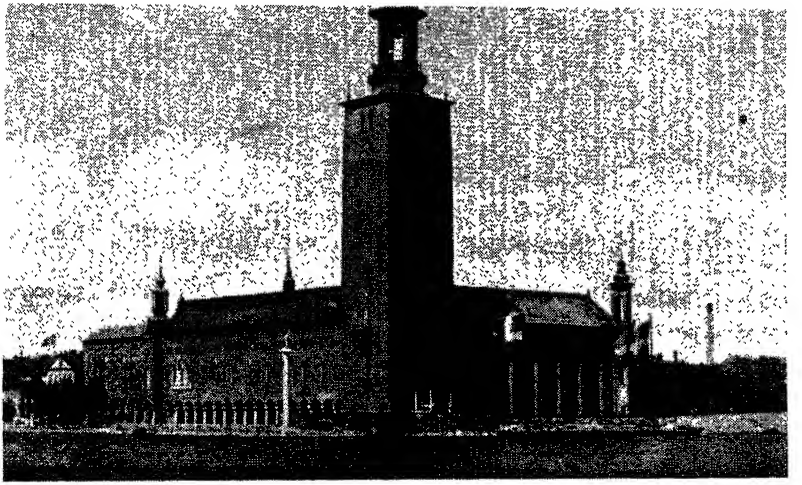
But even if in southern and western Europe in the days before the Christian era something was known of the Northern races, yet it was only at a later stage, about 800 A.D., that those races began seriously to attract attention. This attention was, unhappily, not entirely or even mainly flattering, because it was the Viking raids and warlike expansion in various directions which at that time reminded the other countries of Europe of their existence. But it may be well to bear in mind that the Northern races were not the only ones to disturb the peace of Europe, and that even if the Vikings were hardy warriors, they appear to have respected the blessings of civilisation more

than did those other races who, during the period of the great migrations, wandered about Europe. And their expansion during this period was accompanied also by an expansion of peaceful trading. Modern research has a great deal to tell of the trade connections of those days between the peoples of the North and the peoples of the South, the West and the East. If what it tells is true the Vikings were no strong supporters of autarchy.

*The origin of the five Northern States.*

It is of importance to note that the Viking raids were the outcome of the development of central Kingdoms in Denmark, Norway and Sweden. Those elements of the population which sought their fortune in foreign lands were often under the leadership of chieftains who had in vain resisted the tendency to centralisation. From about the year 1000 these countries appear as units of a kind different from hitherto. The same may be said of Finland, which only later achieved its political unity, but which, in association with Sweden, acquired during the following centuries approximately the same frontiers as it now possesses. As regards Iceland, its colonisation was a lasting result of the great migrations of the Viking age. It was in 874 A.D. that the first inhabitants arrived from Norway at the great and previously unknown island in the North Atlantic. The island was rapidly populated, and in the first half of the 10th century a new state was created there.

The origin of the five Northern States has now been briefly sketched. It would take us too long to follow their history during the period in which in varying degrees they were drawn into the circle of European civilisation. It is not denied that at various times this history is unhappily a history of a series of warlike conflicts between two or more of them, but it is also a history of co-operation in varying forms, including political unions of two or more of the Northern peoples. It is certain also that these unions have assisted in creating and maintaining the spiritual and cultural community which is so characteristic of those countries at the present day. Such unions have been dissolved, but the sense of community has survived their dissolution. Nowadays the memory of past conflicts has completely vanished from the minds of the Northern Countries, while the idea of co-operation, of



STOCKHOLM TOWN HALL,
SWEDEN'S MOST FAMOUS MODERN BUILDING.

mutual aid, has gained strength as never before. For more than a hundred years the Northern peoples have lived at peace with one another, and they have made up their minds to stand united on the side of peace, never allowing other forces to rouse them to hostility. Having had, in the year 1917, the profound satisfaction of welcoming a fully independent Finland into their circle, the Northern Countries wish to remain what they are, five free and sovereign states, culturally and economically closely allied, in the North of Europe.

*The Industrial Revolution and the Northern Countries.*

Economically allied, the Northern Countries have many common economic interests to attend to. Modern economic development has given them a position of importance in World economy, a position which they may the better maintain, the more they understand how to make manifest to others and to themselves what they have in common.

It is unnecessary to observe that the Northern Countries for long periods played a somewhat modest part in existing inter-

national trade. They sent certain goods to foreign countries in earlier times, such as iron and timber, tar, fish and furs, and they purchased other goods in exchange, but it was some time before their foreign trade assumed really large dimensions. Entering late on to the stage of history, they were also tardy arrivals in the Industrial Revolution. It was not until the middle of the nineteenth century that the process of industrialisation reached them and that they took their place in the comprehensive international division of labour of the new age. But if they were late in developing, they were all the more rapid when they did start. Within a short period Denmark's butter, bacon and eggs, Finland's timber, Iceland's fish, Norway's timber and fish, Sweden's timber, iron-ore and machinery gained a market in England, on the European continent and also in various remote parts of the world. Simultaneously the Northern Countries became purchasers on a large and growing scale of coal and other raw materials, as well as of industrial products of the most varied kind.

We give here only a few extremely brief indications of the transformation which has brought the Northern Countries to their present position in World economy, but the greater part of the present volume being devoted to a comparatively detailed description of their industry and trade with foreign countries, they must suffice. We proceed instead to some notes on the cultural structure of these countries.

*Some traits of the culture of the Northern Countries: democracy and social equality.*

That which in a high degree contributes to the unity of the Northern Countries in the world of to-day is their strong cultural affinity, their common inheritance of cultural traditions and institutions. They have seen their civilisation develop, for hundreds or even thousands of years, on parallel lines, and they are still as eager as ever to learn from one another.

Without doubt much of their cultural and political structure is rooted in the traditions of that free and independent peasantry which in times past was the very foundation of their social life. Serfdom never had a place in the life of the Northern Countries, and the peasant population has on the whole been able to defend, even against autocratic governments, its democratic rights and institutions, inherited from time immemorial. This continuity was

not broken when in modern times a new class, the class of industrial workers, arose and acquired to a larger or smaller extent political power in the community. Without any sudden social revolution the Northern Countries have attained to their present form of political democracy, which leaves it to every individual to excercise his influence in social affairs. While refraining from criticizing the political ideals of other nations, an overwhelming majority of the people in the Northern Countries are resolved to maintain the democratic parliamentary system which they have found so well adapted to their conditions.

With this political democracy is combined a relatively highly developed social equality. There are, as in other countries, different social strata with different income-levels. But it may justly be said that the passage from one stratum to another encounters fewer obstacles than in many other countries. The selection of the fittest is in many ways promoted by existing institutions and is in a remarkably small degree hampered by class privileges or exclusive class traditions.

*Education.*

A high standard of Education is another feature common to the peoples of the Northern Countries. Without in any way undervaluing the immense influence exerted in the earlier days by the Roman church — up to about 1500 A.D. — in the North of Europe, it may perhaps be said that adhesion to the Lutheran church, which occurred almost simultaneously in the five Northern Countries, was of considerable significance in the spread of education. While themselves highly educated men, the Lutheran priests have for long periods devoted themselves to this end.

Yet for almost a hundred years it was compulsory elementary education which was the foundation of public education. It goes without saying that elementary education gives to every child not only the ability to read and write, but also instruction in a number of subjects formerly reserved for secondary schools. What is more, it is nowadays organised to a large extent as a basis for higher studies. Of course only a minority pass on to the higher schools, but it should be noted that education in them is practically free, being financed — or at least to a large extent

supported — by the State. And the same is very largely the case with education at the Universities, Technical Colleges, Agricultural Colleges etc. This means that the youth of all classes can proceed to the highest education, a fact which promotes a most wholesome social circulation among the classes.

A great deal has been done also of recent times by voluntary study activities in raising the general level of popular education to a high standard.

A beginning was made about the middle of the 19th century by the People's High Schools, a specifically Northern creation, originating in Denmark but rapidly spreading to the other Northern Countries. These are schools which provide for the needs of adult youth and furnish a general civic education adapted for those who have already chosen their way in life and have come to realise the importance of knowledge of a higher kind than that given in the elementary schools.

While the number of young people, passing through the People's High Schools is considerable, that number must be multiplied many times in the case of those who prosecute their studies in their spare time in their own vocation. In this category we find primarily young industrial workers, but more recently agricultural youth has more and more availed itself of these opportunities for study. The most varied subjects are studied, foreign languages included, and amateur music and dramatics have their devoted enthusiasts in the same circles.

*Physical culture.*

Physical culture, sports and athletics are by no means neglected in the Northern Countries. It is perhaps unnecessary to observe that athletes from these countries have been well to the fore in international competitions of recent years, but it may be remarked that more and more is being done to offer to the great masses of young people an opportunity for sound and varied training in athletics. The national and local authorities have in recent years granted considerable sums of money for the construction of athletic grounds and for the promotion of athletics.

*Unity in administration of law.*

Turning finally to quite another aspect of the cultural life of the Northern Countries, it may be said that they have much in common also in the province of the administration of the Law.

It is not merely that conceptions of law in these countries in many respects derive from a common source and have for a long time developed on similar lines. Consciously and deliberately, in recent times, much work has been laid down in creating uniformity in the laws of the various Northern Countries. It is not too much to say that this work has already produced very important results. Some of these will be described in greater detail in another connection.

*International co-operation.*

Needless to say, the efforts towards uniformity of civil legislation in the Northern Countries are not directed against any other country. Wherever there is a question of international co-operation for the purpose of securing uniformity in the legislation of different countries, the Northern Countries are willing to take their share in the common work. The list of international conventions approved and ratified by them is already long, and it includes all of the more important subjects, among them many belonging to the sphere of Labour legislation.

On the whole the Northern Countries have stood, and still stand, for the principle of peaceful international co-operation, whatever shape it may take. They will certainly not shrink, in the future, from this responsibility, but if strong forces are still at work to isolate peoples and nations, they reserve the right to defend for themselves, in their own corner of the world, the idea of free co-operation between free countries.

CHAPTER II.

# BASIC ELEMENTS IN THE ECONOMIC STRUCTURE OF THE NORTHERN COUNTRIES.

It may be said that the present cultural and economic standard of the Northern Countries is, to a very high degree, the result of the growth of the international division of labour which has taken place during the last hundred years. Deprived of the benefits of international trade the peoples of the Northern Countries would certainly be able to produce the requisite quantity of the bare necessities of life; but what they have gained in prosperity is in danger of serious reduction in a world where the tendency to autarchy, now prevailing in so many countries, continues to spread. They must prepare for all eventualities, but they wish nothing better than to participate in a system of an international division of labour not too unlike that which we have inherited from the last century without, as recent experience shows, fully appreciating the value of the inheritance.

Land, labour and capital being the basic elements of production, we may ask what Nature has done for the economic life of the Northern Countries, and what Man himself is contributing in the shape of labour and saving. A general discussion of these questions may serve as an introduction to the more detailed description of the various industries which at present predominate in the economy of the Northern Countries.

*Natural resources: general survey.*

Let us begin with the somewhat drastic statement that if the Gulf-stream should deviate in some other direction, the Northern Countries would become deserts of ice. Thanks to the magnificent »central heating system» of the Gulf-stream they enjoy a

temperate climate, with mild summers and not too cold winters, a climate which has allowed them to develop what may be rightly designed as the most northerly civilisation in the world.

Of course the winter temperature is lower and the summer season shorter in the more northerly parts of Sweden and Finland than in Denmark or the south-west of Norway. Yet farms are to be found on the latitude of the Arctic circle, for however short the summer may be in this region, it supplies perpetual daylight for a season of the year and warmth enough for the maturing of several seeds.

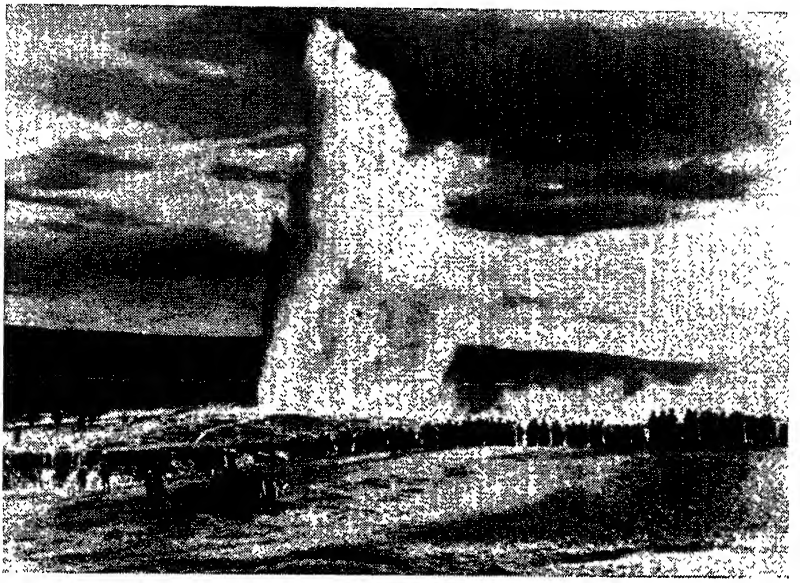
Having thus touched upon one of the fundamental requisites of farming we proceed to the other, i.e. the soil. It may be said that what the Northern Countries have received from Nature's hand of arable soil has been somewhat unevenly distributed. Denmark has been, comparatively speaking, more richly endowed than Finland, Norway and Sweden. And yet the latter countries have no reason to complain. For even if the cultivated area covers only a minor part of their total areas, namely 9, 3 and 11 per cent. respectively as against 76 per cent. in Denmark, agriculture holds a very prominent place in their economy, supplying fully, or at least to a very considerable degree, the population's requirements of food.

The major part of the land area of Finland, Norway and Sweden, the barren mountain region excluded, is covered by vast coniferous forests. Once upon a time the region of firs and pines was a wilderness, where a handful people tried to find, by hunting, a bare livelihood. Nowadays the forests represent treasures upon which a considerable part of the population of these countries depends for its subsistence. It may be that the population of the forest regions of the Northern Countries is still scarce and scattered, but all the greater is the number of people employed by those industries which manufacture the timber into wood-goods, pulp, paper and other more or less important products. It should be added that the forests of Denmark, consisting as to almost a half of hardwood, are of notable importance for the home market. The forest area is small, compared with that of Finland, Norway and Sweden, but the rate of growth is remarkably high.

Nature has also provided the Northern Countries with most valuable mineral resources. In the first place should be mentioned the iron-ore resources, for the iron-ores of Sweden belong to the richest in the world, and those of Norway are also very valuable. Even Finland has considerable deposits of iron-ore within her borders, but most of them are still kept in reserve. Further we have to remember the mighty resources of pyrites and the molybdenum ores of Norway, the nickel ores of Norway and Finland and the sulphide ores of Finland and Sweden, ores which contain copper, silver, gold and still other minerals, including in the case of those of Finland, large quantities of iron. If it is added that zinc ores are found in Norway and Sweden and copper ores in Norway, the list of the most important metalliferous ore resources is fairly complete. A list of valuable non-metalliferous minerals found in the Northern Countries would be still longer, but we refrain from presenting it. It may only be remarked that Denmark here joins the other countries in possessing valuable resources, e.g. vast clay and lime deposits utilized in the cement industry, silicon and, in Greenland, cryolite.

As far as mineral fuel is concerned the Northern Countries have to procure the bulk of their requirements by imports. There are coal seams in Scania in the very south of Sweden and on the Faroe Islands, but the supply is limited and the quality moderate. Of far greater magnitude are the coal resources of the Norwegian possession Svalbard (Spitsbergen Islands); yet Norway draws only part of her coal requirements from her own mines. Of mineral oils the Northern Countries have to buy all that they need from abroad. The Northern Countries ask nothing better than to exchange, on reasonable terms, a part of their export products for the coal and oil of Great Britain, the United States and other countries, and their total demand has hitherto been of respectable dimensions.

Yet four of the Northern Countries, namely Finland, Iceland, Norway and Sweden, have most important water-power resources to draw upon. Mighty waterfalls or river rapids, very often combined with lakes, which maintain an even flow of water, are another of Nature's gifts to these countries. As the figures in the adjoining table show, they are well placed in a list of European



THE GREAT GEYSER OF ICELAND
WITH AN ERUPTION 70 METERS HIGH.

countries with abundant water-power resources; Norway easily ranks as number one in the list. And though much has already been done for the utilization of this water-power, the perennial »white coal» of the waterfalls and rapids, still more may be done in the years to come.

*Potential and Developed Water-Power in Certain Countries, 1933.*

| | Economically utilizable potential water-power Millions of kW | Installed capacities of water-wheels in existing plants Millions of kW |
|---|---|---|
| Norway | 12.1 | 1.9 |
| France | 7.9 | 2.8 |
| Sweden | 6.5 | 1.4 |
| Italy | 5.9 | 3.8 |
| Germany | 3.5 | 2.8 |
| Switzerland | 3.3 | 1.9 |
| Finland | 1.3 | 0.8 |

Iceland has another source of energy in the hot water springing from the volcanic earth. The hot water is used not only for central heating systems and other household purposes, but also for the cultivation of vegetables, flowers and fruit.

In the Northern Countries, with their long coastlines, shipping and fishing have, from time immemorial, played an important part as a means of livelihood for people near the sea. And the sailors and fishermen of the past can look with satisfaction upon their descendants; the inheritance of their experience and endeavour has not been dissipated. If we look to figures for tonnage per head of population in various countries, Norway is found to lead the field, even before Great Britain, and Denmark, Sweden and Finland keep well to the fore, surpassed only by a few competitors. As for the great sea fisheries around Iceland and Greenland, along the coasts of Norway and in the waters of the North Sea, the Skagerak and the Cattegat and the less extensive fisheries of the Baltic Sea, it may be said that their economic importance is even greater than it was in times past. Capricious as may be the yield of the waters of the sea, it remains an indispensable source of subsistence for thousands of men and their families.

It need scarcely be remarked that only the most important of the natural resources of the Northern Countries can find a place in this brief review. There are many others which could be included and the list would be still longer if there were added those which have only partially been exploited or which have not been exploited at all, but are reserved for the future. There is hardly any doubt that continued technical progress will convert many a potential resource into a reality. The forests may to a large extent reach a higher degree of cultivation and yield a growing output of timber. The age of new discoveries of mineral resources has certainly not come to an end: the Northern Countries, like others, will have to search more thoroughly their soil for metals and minerals, utilizing the new methods which modern science has placed at the disposal of prospectors.

*Labour.* Nature's gifts to man are seldom or never unconditional; her services are not gratuitous. The peoples of the Northern Countries

are well aware of that truth. They have had to fight hard in order to profit by the best of their natural resources. In past times the fight was extremely severe, many lives being sacrificed when the crops were poor. But stern fighting hardens the character. The peoples of the Northern Countries have certainly learned a great deal from their striving, throughout past centuries, against famine and misery, and there is reason to believe that they have not forgotten the lesson that their standard of life is another, and far higher, than it formerly was; higher, we may add, than in a great many other European countries.

Thus it must be admitted that the peoples of the Northern Countries are well qualified for the various tasks of modern economic life. They have also shown their qualities as settlers in foreign countries, in the United States and elsewhere. During the 19th century and up to the beginning of the World War they saw their sons and daughters emigrate, in a never-ceasing stream, to the countries on the far side of the Atlantic. Not without regret they saw them leave, but sooner or later regret gave place to recognition and even pride, for everywhere the emigrants from the Northern Countries proved to be, as farmers or industrial workers or in other occupations, most useful members of the new society to which they had gone.

Yet if those who left for foreign countries manifested a spirit of daring and enterprise, the great majority, who stayed at home, did not remain backward.

That part of the population of the Northern Countries which has stuck to farming has known how to unite traditions inherited from past generations with an acquired knowledge of modern agricultural technique and modern commercial methods. The revolution which has in recent times changed the conditions and position of farming throughout the world has not left untouched the farmers of the Northern Countries. It may well be that the pressure of the last agricultural depression would have been unbearable, had not a more or less comprehensive State policy brought a certain relief. Yet without strenuous efforts of their own, especially in the form of increased mechanisation

and co-operation, the farmers would have lost what they had won through decades of enduring work and strict economy.

Most of the industries of the Northern Countries being somewhat recent, the industrial population has in comparatively modern times grown out of the soil of the agricultural population, for which reason the differences and discrepancies between the two are perhaps less pronounced than in many other countries. While the first stages of industrialisation elsewhere have been characterized by the pauperisation of a rapidly growing town population, in the Northern Countries this has not been the case, the less so as a great many industrial enterprises, especially those belonging to the timber industries of Finland, Norway and Sweden, have been located in rural districts.

*Distribution of the Population in Urban and Rural Districts in 1935.*

| | 000's omitted. | | |
|---|---|---|---|
| | Urban districts | Rural districts | Total |
| Denmark .... | 1 711 | 1 995 | 3 706 |
| Finland ..... | 782 | 3 005 | 3 787 |
| Iceland ..... | 63 | 53 | 116 |
| Norway ..... | 820 | 2 056 | 2 876 |
| Sweden ..... | 2 136 | 4 113 | 6 249 |

In Iceland the term »Urban District» is taken in a broader sense than in the other countries, coastal villages with 300—1,200 inhabitants being included.

The rapid industrial development having been accompanied by a rapid rise in the wages of labour, both skilled and unskilled, industry in general can count upon a supply of labour of a remarkably high mental and physical standard. If in the Northern Countries a whole series of industries is well able to maintain its position in international competition, it is not least because they have at their disposal a stock of labour with exceptional skill and experience.

But skill and experience are in no less degree demanded of industrial leaders and their staffs of technical and commercial collaborators. And much is done in the Northern Countries for the necessary training of experts in the technical and commercial

field. The highest technical education has been for a long time past on a very high level, and if the Commercial Colleges are more recent than the Technical Colleges — both being of university rank —, they have already proved their ability to perform valuable work in their special sphere.

It remains to be said that the organisation of labour has proceeded far almost everywhere in the Northern Countries and, on the whole, on similar lines. Yet a certain reserve must on this point be made as regards Finland, where the respective organisations are noticeably less developed than in the other Northern Countries.

As in other countries, the workers were the first to organise, and their trade unions soon achieved a position of importance. Nowadays the trade unions are combined in national organisations, comprising the majority not only of skilled but also of unskilled workers in the various manufacturing industries, transport, shipping etc., and even some of the agricultural labourers.

As regards the unions of employers, they have, though at a somewhat later date, reached a magnitude corresponding essentially to that of the trade unions. Their process of centralisation has also gone far, with the result that most of the organisations have combined in a larger association.

In connection with the development of the trade unions and the employers' unions collective agreements have come to acquire ever greater importance, in any case in Denmark, Norway and Sweden. This involves, on the other hand, a greater risk of comprehensive conflicts. The State policy of mediation in case of conflict has, however, done a good deal to reduce the number of working days lost through strikes and lockouts.

*Capital resources.*

When they started on the road to industrialisation the Northern Countries had to a certain degree to rely upon an influx of capital from foreign countries more richly endowed with that most important element of production. Foreign capital — British, French and German as well as Dutch and Swiss — helped them to build their first railways and even, through the intermediary of mortgage institutions, to promote agriculture and the building of dwelling houses in the towns.

The age of capital imports has perhaps not come to an end in all the five countries, but on the whole they can nowadays rely to a much greater extent than formerly upon their own capital resources and need not draw upon the savings of nations outside their own circle. Indeed, in recent times in one of the countries, Sweden, savings permit the export of capital, and not unconsiderable amounts of capital have been placed at the disposal of her nearest neighbours.

It goes without saying that the capital markets of the Northern Countries have not reached, by far, the degree of differentiation and refinement which characterizes that of a country like Great Britain, the centre of world trade. The structure of the capital markets of the Northern Countries has necessarily been adapted to their particular needs, including the needs of their foreign trade. If new requirements arise, they will certainly, sooner or later, be satisfied.

At present the Central Bank in conjunction with the Commercial Banks may be said to constitute »the money market» of the respective Northern Countries; for a free market outside the circle of the banks scarcely exists. The Central Banks (Danmarks Nationalbank, founded 1818, Suomen Pankki/Finlands Bank, founded 1811, Landsbanki Íslands, founded 1885, Norges Bank, founded 1816, Sveriges Riksbank, founded 1656) have, like those of other countries, as their principal function the control of currency and foreign exchanges, while the Commercial Banks, relying upon their own funds, upon deposits and, when necessary, upon money borrowed from the Central Banks, supply the credit demands of industry and trade, foreign as well as domestic.

The Savings Banks have specialised in the more local credit needs of farming, handicrafts, housing etc. None the less they play a most important part in the capital markets of the Northern Countries, having during a century accumulated the savings derived from the mass of small earnings.

If the credits granted by the Savings Banks are as a rule relatively long-termed, mortgage institutions of various kinds grant credits of an even longer duration, procuring the requisite means by the help of bond issues. Farming and residential building in

the towns are still to be regarded as the principal field of operations of the mortgage institutions, but in recent times some have been founded in order to supply the capital needs of industry and shipping.

The ever-growing stream of savings in the shape of life insurance premiums flows through many channels into production. The insurance companies place a large part of their revenues in mortgage loans, and another part is invested in bonds of various kinds.

But however important the above movements of the capital market may be, the building up of sufficient reserves is the first and foremost task of the innumerable enterprises in agriculture, industry, shipping, trade etc. Most of these of course never appear in public, being thrown upon the resources of their respective owners. But, as elsewhere, the capital markets of the Northern Countries are drawn upon by a number of industrial, shipping, trade and banking companies by invitations to the public to subscribe for their shares.

It may be added that in recent times several leading bonds and a few shares quoted on the stock exchanges of Copenhagen, Helsinki, Oslo and Stockholm have been introduced on the London, Paris and New York exchanges, which shows that the capital markets of the Northern Countries have come into closer connection with the great financial centres of the world.

*Distribution of population according to occupation.*

Let us conclude our description of the most important productive resources of the Northern Countries with a short discussion of the figures of distribution of the population in different occupations and the amount of the national income.

The figures of the distribution of the population in different trades may themselves throw light on the subject. The table below shows, among other things, that a considerable part of the population of the Northern Countries is still dependent upon agriculture for its livelihood. Reckoned in percentage the agricultural population varies from about 30 per cent. in Denmark and Norway to nearly 60 per cent. in Finland. In highly industrialised countries like England and Belgium the corresponding figures are 10—20 per cent. or even less.

*Distribution of Population according to Occupation.*

| | Denmark (1930) | Finland (1930) | Iceland (1920) | Norway (1930) | Sweden (1930) |
|---|---|---|---|---|---|
| | | | Per cent. | | |
| Agriculture, horticulture and forestry | 30.3 | 59.2 | 42.9 | 29.9 | 34.2 |
| Fishing and whaling | 1.0 | 0.4 | 18.9 | 7.0 | 0.6 |
| Mining, industry and handicraft | 28.6 | 16.7 | 11.3 | 27.6 | 31.7 |
| Commerce | 10.7 | 4.3 | 12.2 | 10.1 | 15.5 |
| Shipping and other transport | 7.0 | 3.8 | | 9.6 | |
| Other | 22.4 | 15.5 | 14.7 | 15.8 | 18.0 |
| | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

A table showing the number of workers and the gross value of production in the different manufacturing industries will be found in the table section, *Table 15*.

Conversely such countries show a correspondingly higher figure for that part of the population which derives its livelihood from industry. Of the Northern Countries Sweden has comparatively the largest industrial population, partly owing to the magnitude of its iron-ore resources. Denmark and Norway come not far behind and Finland is still in the middle of a process of industrialisation which will in the near future considerably increase its percentage figure.

In Iceland the percentage of the population engaged in industry is only 11 per cent., but on the other hand about 19 per cent. are engaged in fishing, which means that fishing comes next to farming as a source of livelihood. Finally it may be mentioned that Norway and Denmark are first, relatively, in commerce and shipping, followed closely by Sweden.

*National income and its distribution.*

Proceeding to figures of national incomes we must remember that care must be exercised in their interpretation, for they are, of necessity, very uncertain, at best only approximations to reality.

The next table will allow a comparison between the national income of four of the Northern Countries and those of Great Britain and some countries on the Continent. The year 1929 has been chosen as a basis of comparison, being a year of prosperity and monetary stability. More recent figures may in some cases be had, but they are to a certain degree influenced by the last depression.

*National Income of Various Countries in 1929.*

| | Total | Per head of population |
|---|---|---|
| | £ | £ |
| Great Britain ..... | 3 996 000 000 | 87 |
| Netherlands ..... | 477 000 000 | 61 |
| France ..... | 1 979 000 000 | 48 |
| Denmark ..... | 203 000 000 | 58 |
| Finland ..... | 85 000 000 | 25 |
| Norway ..... | 143 000 000 | 51 |
| Sweden ..... | 430 000 000 | 70 |

Great Britain ranks first amongst countries included in the table, whether the absolute figure of the national income or the income per head of population be taken. But if we adhere to the latter criterion we shall find that the Northern Countries generally make a very good showing. Some of them have already passed certain continental countries which for a considerable time past have occupied a central place in World economy. Finland is found to lag a little behind, but it ought to be borne in mind, here as elsewhere, that the cost of living in that country is lower than in the other Northern Countries. If it were possible to reckon with real income instead of money income, the difference between Finland and countries like Denmark, Norway and Sweden would be markedly lessened.

It should further be added that the national income in the Northern Countries is more evenly distributed than in many other countries. An average of say £ 50 per head of the population may mean extreme wealth of a few people combined with extreme poverty among the great majority. As far as the Northern Countries are concerned the figures have no such meaning. It is true that even in those countries the range between the highest and the lowest incomes is considerable, and no less true that there are groups with a low standard of living. But on the whole the standard of living of the broad strata must be said to be rather good, people being generally well nourished and well clad. And if the standard of housing, in some parts, has so far left a good deal to be desired, both in urban and in rural districts, energetic

efforts are nowadays being made to improve conditions. Since the growth of the urban population is of a fairly recent date, no slum problem of any importance has arisen.

Some data of the statistics of consumption may confirm what has been said about the level of the common standard of living in the Northern Countries. Figures of consumption of sugar, milk etc. furnish reliable evidence, since wealthy people do not spend much more on elementary foods than do people of modest means.

*Consumption of Certain Articles of Food etc. in lb. per Head of Population in Various Countries in 1934.*

| | Milk a) | Meat | Fresh fruit e) | Sugar | Coffee | Tobacco |
|---|---|---|---|---|---|---|
| United Kingdom | 98 | 139 | 86 | 94 | 1 | 3 |
| France ..... | 70 | 75 | 49 | 48 | 9 | 3 |
| Netherlands .... | 83 | 91 c) | . | 55 | 8 | 7 |
| Belgium ..... | 73 | 90 | 69 | 53 | 13 | 7 |
| Denmark ..... | 102 | 145 | . | 113 | 15 | 5 |
| Finland ..... | 123 | 68 d) | . | 50 | 11 | 2 |
| Iceland ..... | . | . | . | 88 | . | 2 |
| Norway ..... | 100 b) | 77 | 62 | 61 | 13 | 2 |
| Sweden ..... | 143 b) | 82 d) | 61 | 89 | 16 | 3 |

a) Milk, including cream, butter and cheese in terms of milk; gallons; the first figure refers to Great Britain. b) 1933. c) Average 1930—33. d) Rough estimate, average 1932—33. e) Average 1930—34.

As may be seen from the above table, the consumption figures for the Northern Countries compare well with those for countries like Great Britain, France etc. A detailed discussion of the contents of the table is superfluous. It may only be stressed that the consumption of »protective» food such as milk and butter in the Northern Countries reaches a high level.

The peoples of the Northern Countries have striven not without success to use the resources with which they have been endowed. A further account of the development of the more important branches of industry and of their present position will follow.

## CHAPTER III.

# AGRICULTURE.

*Natural conditions of farming and area under cultivation.*

From what has previously been said concerning the nature and soil of the Northern Countries it will be understood that only a small part, in fact only one tenth of the area, is suitable for cultivation. Apart from Denmark, where three-fourths of the land is employed in agriculture, the cultivated area is relatively small, amounting in volcanic Iceland to less than one half per cent. of the total area, and in Finland, Norway and Sweden, with their huge forest areas, to 9, 3, and 11 per cent. respectively. Nevertheless, a greater number of the population of each of the Northern Countries gains its livelihood by agriculture than by any other branch of production, and all five countries are in a position to meet the home demand for refined animal foodstuffs, of which produce some of them even have a very considerable export surplus.

A glance at the absolute figures of the cultivated area given below shows that while Denmark and Finland have about the same area of cultivated land, that of Sweden is 50 per cent. larger. The cultivated area of Norway, and especially that of Iceland, is considerably smaller, but it should be taken into consideration that, to a greater extent than is perhaps the case with the other countries, Norway and Iceland have vast areas of natural grass land, which have never been cultivated but are important as producing grass for hay and for grazing.

*Cultivated Area.*

| | 1000 hectares [1]) | % of total area |
|---|---|---|
| Denmark | 3 242 | 76 |
| Finland | 3 333 | 9 |
| Iceland | 40 | 0.4 |
| Norway | 1 021 | 3 |
| Sweden | 4 848 | 11 |
| Total | 12 484 | 9.6 |

When it is considered that the Northern Countries cover an area measuring 1.8 mill. sq. kilometres and extend from a latitude of 55° to 71°, or far beyond the Polar Circle, a distance of nearly 2,000 kilometres, it is evident that the conditions under which farming is carried on must necessarily vary a great deal. Not only is the period of growth two or three months longer in the south than in the northern parts of Scandinavia, but, apart from the coastal districts, suitable farmland on a large scale is only found in the southern districts, and especially on the Danish islands and in the southernmost parts of Sweden, where to a great extent the soil consists of moraine clay with a rich content of lime and is therefore extremely fertile.

*Cultural and technical foundations of farming.*

The natural conditions of farming being more or less favourable, agriculture has always played a prominent rôle in the economy of all the five Northern Countries. In the »mercantile» period, however, it was commerce and industry which enjoyed the favour of the governments, while agriculture — still the first industry — was practically at a stand-still. It was only when, towards the end of the eighteenth century, opinion concerning the importance of agriculture to the community changed, that a number of reforms were introduced that formed the basis of the remarkable development which has taken place, especially during the last fifty years, and made it possible for the agriculture of the Northern Countries to reach the high standard to which it has attained to-day.

Compulsory education, which the Northern Countries were among the first to establish, laid the foundation upon which the famous people's high schools and the agricultural high schools

[1]) 1 hectare = 2.47 acres.

were built from the middle of the 19th century. The general education and technical training which the young farmers received enabled them to make use of the remarkable scientific and technical progress which, to a great extent at the instance of the Agricultural Societies and the owners of the large estates, was made with regard to both plant culture and animal husbandry. It was a Dane and a Swede who, independently of each other, invented in 1878 the continuously operating separator which has promoted so much the development of the dairy industry. And, again, it was the same high standard of culture that paved the way for the co-operative movement in agriculture. This principle was first adopted in Denmark, but has also attained great importance in the other Northern Countries.

When in the 'seventies and 'eighties the European markets were flooded with cheap grain from overseas, owing to the revolutionary progress in the means of transport, the Northern Countries were severely hit by this new competition, which made their production of grain unprofitable. Until then Denmark, and to a smaller degree also Sweden, had been grain-exporting countries. The new state of things forced them, however, to change the character of their agricultural production and to pay special attention to the production of animal foodstuffs, for which relatively better prices were obtainable, and the same line of development was also followed in Finland and Norway.

It was sheer necessity which brought about this change in the character of the agricultural production of the Northern Countries; but the remarkable development which took place, especially as regards Danish exports of bacon, butter and eggs, would not have been possible without a corresponding expansion of demand in foreign markets. Fortunately, the rapid development of manufacturing industries in Central and Western Europe, and the growth of a population with greater spending power, created new large consuming centres that made greater demands on the supply of animal foodstuffs than home farming could satisfy. It is against this background that the following facts relating to the present position of agriculture in the Northern Countries should be seen.

*Distribution of agricultural holdings according to size.*

It has been a characteristic trait in the farming of the Northern Countries that, through all its changes, the greater part of the land has been divided into small farms and has thus been left in the hands of the peasant class. Modern developments have altered the proportion between the population of the towns and the rural districts, and have led to a decline in the agricultural population during the last 50 years from more than a half to about one-third of the total population. The farmer class has, nevertheless, maintained its position within the rural population, and the change from self-sufficiency to the production of marketable products has only served to strengthen the smaller farms which, through the co-operative movement, have been able to participate in the benefits of large-scale undertakings.

An important feature in this development is the great number of small holdings which, with the support of the State, have been established since the beginning of this century, in Denmark and in Sweden mainly through the parcelling out of larger estates, in Finland also through the colonisation of forest land.

From *Tables 1* and *2* it will be seen that about 77 per cent. of the farms are small-holdings of less than 10 hectares, while nearly 22 per cent. are medium-sized farms between 10 and 50 hectares. Of the total cultivated land, however, more than half comes under the latter group, as against one-third under the group of small holdings.

In Denmark the average size of the agricultural holdings is larger than in the other Northern Countries, where the topographical conditions in many places have made necessary the division of land into smaller units. The Danish small-holdings, which on the whole may be considered as small peasant farms, capable of supporting a family, equal in number the ordinary farms and larger estates together, but comprise only one-sixth of the land. The large estates occupy a corresponding area, while about two-thirds belong to the ordinary farms, which on an average measure about 25 hectares.

In Finland and Sweden the division of the land is very much alike, the number of small farms being more predominant than in Denmark, but not so much as in Norway, where only about 38 per

Jonals photo.

DANISH LANDSCAPE AT HARVEST TIME.

cent. of the land is occupied by farms measuring more than 10 hectares. Very often comparatively large areas of forest are attached to Finnish and Swedish farms with only a very small acreage of cultivated fields. The same is the case in Norway, where also very often, particularly in the hills and the mountainous regions, large areas of pasture and grazing grounds pertain to farms with a comparatively small area of cultivated land and where many of the agricultural holders in the coastal districts have to eke out their livelihood by fishing. This also applies to some extent to Iceland.

*Distribution of agricultural holdings according to mode of tenure.*

Not only the distribution of land, but also the mode of tenure is to a great extent the same, the majority of farmers in the Northern Countries being freeholders. Of the total number of agricultural holdings more than 80 per cent. are farmed by their owners. In Denmark this percentage is as high as 94, which may,

however, partly be due to a more developed agricultural credit system, but the corresponding figures for Finland, Norway and Sweden are not much lower. In Iceland about 60 per cent. of the agricultural holdings are farmed by the owners.

*Utilization of area and crop yield.*

From early times the raising of grain has been a great feature in the agriculture of the Northern Countries, except in Iceland, where farming is based almost exclusively on grass. In the more northerly areas it was particularly the hardy 6-rowed barley that formed the staple crop, whereas rye was always the principal bread-grain in Denmark and the southerly parts of Sweden, Norway and Finland. Wheat was only cultivated on soils that were most fertile and favoured with the best climate; but gradually, as more hardy varieties, giving a better yield, were found, they have been adopted more and more, a change that has been particularly observable during the past few years.

The following figures illustrate the utilization of the agricultural area in the Northern Countries in 1935:

| | Cereals | Fodder roots, Sugar-beet and Potatoes | Green crops and Grass-fields in rotation | Seed- and other crops | Fallow | Total area in crop rotation |
|---|---|---|---|---|---|---|
| In 1 000 hectares | 4 038 | 957 | 4 252 | 124 | 437 | 9 808 |
| Percentage .... | 41.2 | 9.7 | 43.4 | 1.3 | 4.4 | 100.0 |

The area is not utilized in the same manner in all countries of the North; in Denmark grain and root-crops are much more prominent than in the other Northern Countries, whereas the contrary is the case with regard to grass *(Table 3)*.

As regards the area devoted to grain the distribution is as follows for 1935:

| | Wheat | Rye | Barley | Oats | Mixed corn etc. | Total cereals |
|---|---|---|---|---|---|---|
| In 1 000 hectares.. | 496 | 635 | 644 | 1 601 | 662 | 4 038 |
| Percentage ..... | 12.3 | 15.7 | 15.9 | 39.7 | 16.4 | 100.0 |

It will be seen that oats occupy two-fifths of the grain area, whereas the areas under rye, barley and mixed corn (barley and oats), each of almost equal size, represent about 16 per cent.

each. The wheat area is somewhat smaller but has been rising rapidly in recent years *(Table 4)*.

For the purpose of showing the crop yield the following figures are given of the cereal output for 1935 and, as that year was rather above the average, the averages for the years 1926—30:

| In 1000 metric tons | Wheat | Rye | Barley | Oats | Mixed corn | Total cereals |
|---|---|---|---|---|---|---|
| 1935 ..... | 1 213 | 1 084 | 1 629 | 3 124 | 1 543 | 8 593 |
| 1926—30 .... | 795 | 1 036 | 1 452 | 2 918 | 1 181 | 7 382 |
| In metric tons per hectare | | | | | | |
| 1935 ..... | 2.44 | 1.71 | 2.53 | 1.95 | 2.33 | 2.13 |
| 1926—30 .... | 2.27 | 1.54 | 2.26 | 1.77 | 2.18 | 1.92 |

Fuller details of the size of the crops and the yield per hectare in each country are contained in *Table 6*.

The natural conditions for growing grain are of course not so good in the northerly areas as in those in the south, and consequently the difference in the yields per hectare is considerable. Among grain-producing countries on the whole, however, the Northern Countries hold a prominent position with regard to the fold yield, one explanation being the extraordinary amount of work done, especially during the last fifty years, to improve the soil by draining and marling. In addition, very great care is taken in cultivating the soil, for which purpose the farmers have modern machinery and implements at their disposal. One consequence of the existence of large numbers of live-stock is a considerable quantity of natural manure; but artificial dressings are also used in great measure. Finally — and this is perhaps not the least important point — mention must be made of the assistance derived by farmers from the practical scientific work on plant culture now performed at a large number of experimental stations erected in various places in the Northern Countries.

The great increase in the growing of root-crops has involved a more intensive treatment of the soil and, in areas where these crops are grown most, has made it almost possible to omit fallow from the rotation. The first beet-sugar factory was built in Sweden as long ago as in the middle of last century and about twenty years later the manufacture of beet-sugar was also started

in Denmark. Before then the root-crops were restricted almost entirely to potatoes, and only a very small portion of the land was put under beet. But almost at the time when sugar-beet cultivation began to spread, the production of animal foodstuffs also grew very considerably, necessitating the growing of more fodder, and this very quickly led to a rapid increase in the areas under fodder-beet.

Of the root-crop area a little more than half is now used for fodder-beet, over one-third for potatoes and the remainder for sugar-beet *(Table 5)*.

Potatoes are grown everywhere in the North, and all the countries produce sufficient quantities for their own needs. The same applies to fodder-beet, whereas sugar-beet is grown only in Denmark and Sweden and, to a smaller extent, in Finland, though the latter country is unable to satisfy its own sugar demand by means of home-grown supplies *(Table 7)*.

It remains to mention the cultivation of grass and other green fodder in the rotation, occupying about 45 per cent. of the entire agricultural area. As in the growing of grain and root-crops, farmers use nothing but selected seed strains, and considerable quantities of seeds are also exported.

Converting the nutrition value of the various crops into »crop units», each corresponding to 100 kg barley, 1935 gave the following figures for the total crop yield of the Northern Countries:

| | | |
|---|---|---|
| Denmark | 111.0 | mill. crop units |
| Finland | 34.1 | » » » |
| Iceland | 0.9 | » » » |
| Norway | 18.2 | » » » |
| Sweden | 90.3 | » » » |
| | 254.5 | mill. crop units |

According to these figures the total crop yield represents about 25 million tons of barley, or more than twice the crop yield of fifty years ago. But however high this figure may seem, the actual crop yield is even higher, for a large part of the grass crops, especially in Norway and Iceland, and the valuable seed crops, are not included.

Bread-grain forms only a small part of the crop yield, and considerable quantities are imported. Taken together, however, the Northern Countries could easily supply themselves with bread, and if grain has nevertheless to be imported, the reason is that much the greater part of the crop yield is used in animal husbandry and, together with imported grain and cattlecake, forms the basis of a production of animal foodstuffs which, in addition to covering the home demand, is so great that it forms a very large part of the world's exports of these products, as will be seen from what follows.

*Live-stock.*

As a consequence, live-stock breeding in the Northern Countries is co-ordinated with plant cultivation in production and, like the latter, has developed tremendously.

The following table illustrates the numbers and distribution of live-stock in 1935:

| | Horses | Cattle: total | Cattle: cows | Pigs | Sheep | Goats | Poultry (Fowls) |
|---|---|---|---|---|---|---|---|
| | | | | in 1000's | | | |
| Denmark | 539 | 3 122 | 1 677 | 3 106 | 179 [1]) | 21 | 11 627 |
| Finland | 361 | 1 822 | 1 275 | 510 | 1 024 | 13 | 2 853 |
| Iceland | 45 | 36 | 25 | . | 656 | 2 | 81 |
| Norway | 183 | 1 328 | 796 | 390 | 1 734 | 334 | 3 734 |
| Sweden | 611 | 2 919 | 1 926 | 1 294 | 444 | 119 | 8 219 [2]) |

Nowadays the purpose of horse breeding, which is very ancient in the Northern Countries, is to supply the demand for draught animals, especially for farming, where the use of tractors is somewhat limited owing to the relatively small size of the farms. In former days there was a considerable export trade in horses from Iceland, for example for the coal-pits in Great Britain, but it has fallen off. Denmark has the principal export trade in horses, the type being the powerful »Jutland horse», which goes almost exclusively to Germany. As a matter of fact, however, Denmark imports a number of small horses for use on small-holdings.

Cattle breeding has been an important feature in agriculture in the North since very early times; the breeding of beef-cattle

[1]) 1933 [2]) 1932.

in particular was of importance to Denmark, which for centuries has been a large supplier to varying markets, the Netherlands, Great Britain and Germany especially.

When dairy farming began to develop in the 'eighties the supply of cattle for the market also increased very rapidly, for in addition to the production and export of beef-cattle, which is still kept up on a large scale, came the numbers of cows which were set aside from the herds every year. As a result the exports of live and killed cattle, which in the year 1880 comprised about 100,000 head, had grown to 245,000 in 1930. In the subsequent years of the crisis this export trade, which is mostly done with Germany, fell off to a marked degree, but during the past year or two it has picked up again and in 1936 totalled 186,000 head.

In the other Northern Countries the production of beef corresponds very closely to the consumption on the home market, and, apart from Sweden, which in recent years has had a surplus of 5,000 to 6,000 head of beef-cattle for export, foreign sales have not been great. Nevertheless some impression of the output of the North can be gained from the following figures, though they comprise all meat except pork — that is to say they also include mutton and goat-meat as well as slaughtered poultry:

*Meat output in 1935.*

| | | |
|---|---|---|
| Denmark | 183 500 tons | |
| Finland | 62 000 » | |
| Iceland | 8 400 » | |
| Norway | 59 000 » | |
| Sweden | 113 700 » | (excl. poultry) |

*Dairy farming.*

In animal husbandry, however, the production of milk is much more important now than meat production, and all the measures taken with the support of the authorities for improving the breeds were specially introduced in order to increase the output of milk. These measures included the establishment of breeding centres, the introduction of herd books and the formation of bull societies, which make it possible for the farmers to obtain the services of really first class breeding animals. There are also the

control societies (milk recording societies), a form of institution that originated in Denmark. They enable the farmer to determine and check the yielding capacity of every animal, both as to quantity and as to quality, in order that those animals which do not come up to standard may be disposed of. The result of this selection has been that the milk yield per cow has increased very greatly, and it is now more than twice as much as it was fifty years ago.

The milk output in 1935 was:

| | | | |
|---|---|---|---|
| Denmark | 5 120 | million | kg |
| Finland | 2 375 | » | » |
| Iceland | 62 | » | » |
| Norway | 1 352 | » | » |
| Sweden | 4 700 | » | » |

The milk not used by the farmers themselves or sold direct for consumption is used chiefly in the manufacture of butter. For Denmark this means 80 per cent. of all milk produced and for Finland about half; in Norway and Sweden, where milk for direct consumption takes a large share of the output, the quantity used for butter is rather smaller. Part of the milk is also employed for cheese and preserved milk. In 1935 the output of dairy butter and cheese was 262 and 82 million kg respectively, distributed over the various countries as follows:

| | Denmark | Finland | Iceland | Norway | Sweden | Total |
|---|---|---|---|---|---|---|
| Butter | 168 | 23 | 0.1 | 9 | 62 | 262 |
| Cheese | 29 | 7 | 0.2 | 20 | 26 | 82 |

Apart from Denmark the figures must be increased by the output of country butter, amounting for Finland, Norway and Sweden to 22, 6 and 20 million kg respectively. The quantity produced at the dairies, however, is steadily growing, and only dairy butter is exported. Strict regulations have been imposed for export butter, and, as part of this control, all the butter-exporting countries have introduced national brands. These trade-marks constitute a guarantee that the butter is of the standard necessary to permit of its exportation. As a matter of fact it was the Danish farmers themselves who took the initiative in this matter by

introducing a national brand for their butter as long ago as 1900, and thereby anticipating the new system of »Standardization of Trade Marks» introduced in the British Trade Marks Act of 1905 and since internationally adopted.

The co-operative dairies, of which the first was started in Denmark in 1882, have been of the very greatest importance in the building up of rational dairy farming in the Northern Countries, not only as regards production by making it possible to turn out a uniform commodity of outstanding quality, but also by securing small farmers with a small milk output the same price for their milk as the large suppliers.

The figures below give an impression of the distribution of the co-operative dairies in the Northern Countries in 1935:

| | Denmark | Finland | Iceland | Norway | Sweden |
|---|---|---|---|---|---|
| Dairies, total ..... | 1 749 | . | 10 | 633 | 1 431 |
| Co-operative..... | 1 404 | 682 | 10 | 558 | 732 |

The butter exports of the Northern Countries reached their highest volume in 1931 at 180,000 tons. The lower purchasing power in the years of the crisis, and especially the new policy of economic nationalism, have raised obstacles to any further growth of exports, which in 1935 totalled 169,000 tons, or 27 per cent. of the total exports of this commodity from all countries. Of the aggregate, Denmark exported 138,000 tons, whereas Sweden exported 20,000 and Finland 10,000 tons, and Norway a smaller quantity.

Most of the butter is disposed of in the United Kingdom; Germany is the principal buyer among the Continental countries. To a considerable extent the export trade passes through co-operative butter-exporting societies.

Of the other dairy products, cheese and preserved milk, Norway and Finland in addition to Denmark have a surplus for export. Whereas Germany is the largest customer for the cheese, the condensed milk is mainly sold to the United Kingdom and to a number of markets overseas.

In the Northern Countries pig breeding is to a wide extent connected with dairy farming, and one important reason why the

*Pig breeding and bacon producing.*

production of bacon has grown so enormously there is that the by-products of the dairies, skimmed milk, butter-milk and whey, have proved to be particularly suitable for pigfeed when high quality bacon is required. What was said in the foregoing about the importance of scientific methods of breeding and a systematized breeding organisation to dairy farming is at least equally applicable to bacon production.

In the first twenty years after dairy farming came into favour the exports of live and killed pigs grew rapidly, mainly from Denmark, but to some extent from Sweden as well. The introduction of a prohibition against the importation of live pigs into Germany in 1887, and fresh pork in 1895, made it necessary to find other markets, and interest concentrated on the United Kingdom. But whereas Germany had required fat porkers, Great Britain preferred pigs with more meat and less fat, and therefore it became necessary to make an entire change in the breeding principles hitherto followed. It has required the work of a generation to obtain the result achieved today.

Even at the turn of the present century the exports of bacon and hams exceeded 1 million cwts., since when they have risen steadily, until in 1932 a total of 8 million cwts. was reached. Of this total Denmark exported 7.5 millions and Sweden 0.5 million. In recent years Finland and Norway have also begun to work up a small export. The United Kingdom buys practically the entire quantity, but as a result of the British import restrictions the exports have declined heavily in recent years. In 1935 the total was only 4.1 million cwts., of which 3.8 millions were from Denmark, who supplied more than half of the United Kingdom's total imports, and about 0.8 million from Sweden.

This large-scale production of bacon gives rise to many different by-products, such as offal, lard, etc., most of which are exported, mainly to Germany. Denmark has also quite a large export trade in tinned meats.

After lying dormant for twenty-five years the export trade in live pigs was resumed after the War. It fluctuates a good deal from year to year, but in 1936 the total was 184,000 pigs. These exports were mainly from Denmark to Germany.

There is a very strict veterinary control over the production and export of pig products, and likewise the main product, bacon, as well as lard, are subjected to a special quality control and system of marking.

In bacon production the co-operative movement has again been of the very greatest importance. In Denmark there are no fewer than sixty co-operative bacon factories, which handle more than four-fifths of all export pigs; many of them have joined together in a common selling organisation. Co-operative bacon factories have also been established in the other Northern Countries.

*Poultry breeding, egg production and export.*

In the Northern Countries poultry-keeping is closely associated with agriculture, and even in the 'seventies Denmark and Sweden had a small export trade in eggs. It was not until the hard times in the 'eighties, however, that the farmers began to take a real interest in this branch of production. After suitable breeds had been imported the stocks of poultry grew very quickly and became an important factor on the farms, especially the small holdings. Egg production is the chief interest, and all the Northern Countries except Iceland have a surplus production for export. Of the world's total egg exports in 1935, 258 million score, the Northern Countries supplied 68 millions, or more than one-fourth. Of this total 59 million score came from Denmark, which has the largest exports of all egg-exporting countries, whilst Finland and Sweden exported 7.4 and 2.6 million score and Norway 0.5 million.

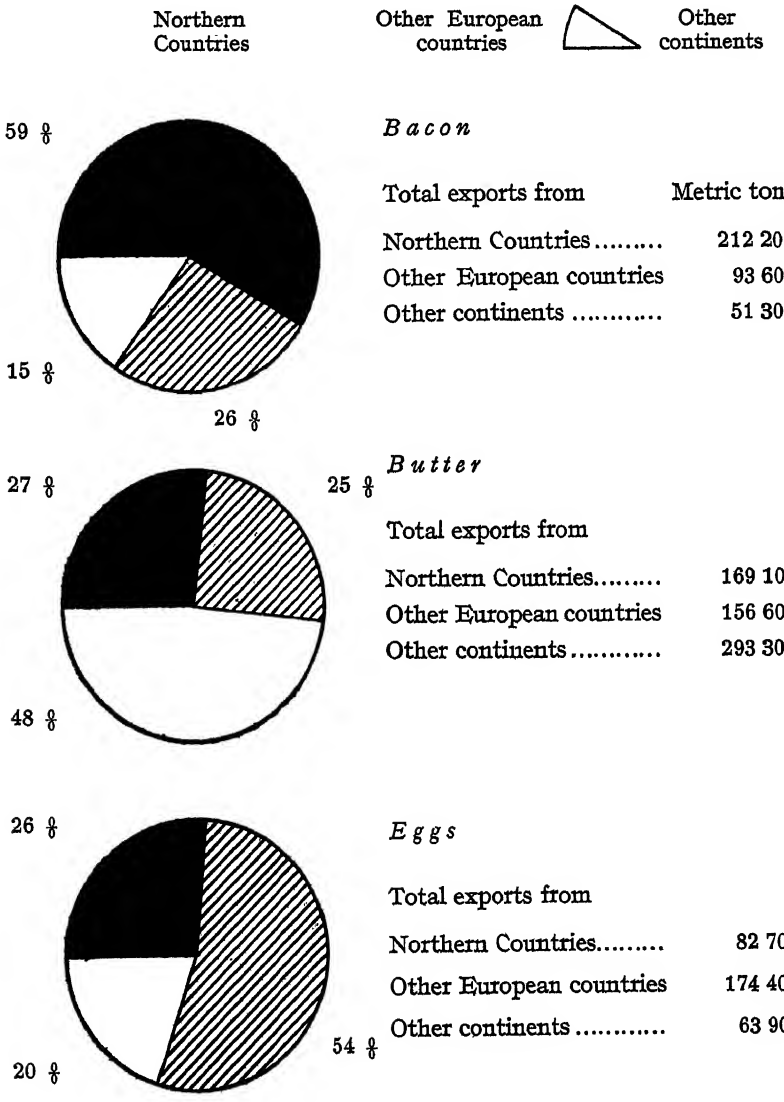
A certain part of the egg export trade passes through co-operative egg-selling organisations.

*Other agricultural produce.*

Of all the agricultural products of the Northern Countries, those referred to in the foregoing must be said to be of chief importance. There are many others, however, which provide a considerable surplus for export, including slaughtered poultry, malting barley, seeds, especially grass and beet seeds, potatoes and cabbages, and hides. There are also frozen and salt lamb which, together with wool and wet-salted sheepskins, are the principal Icelandic export commodities from the farms; most of these exports pass through co-operative societies.

In connection with agricultural exports there may be occasion

*The Northern Countries' Share in the World's Exports of Bacon, Butter and Eggs in 1935.*




*Bacon*

| Total exports from | Metric tons |
|---|---|
| Northern Countries..... | 212 200 |
| Other European countries | 93 600 |
| Other continents ..... | 51 300 |

*Butter*

| Total exports from | |
|---|---|
| Northern Countries..... | 169 100 |
| Other European countries | 156 600 |
| Other continents..... | 293 300 |

*Eggs*

| Total exports from | |
|---|---|
| Northern Countries..... | 82 700 |
| Other European countries | 174 400 |
| Other continents ..... | 63 900 |

*Silver-fox farming.*

for referring to a relatively new occupation associated with animal husbandry, one that is especially important to Norway: silver-fox farming. In Norway there were in 1936 17,000 fox farms with 390,000 animals, and the value of the exports of silver-fox furs now approaches £ 1.5 mill. a year. This industry is also attracting the interest of the other Northern Countries, especially Finland and Sweden, where the number of farms is already considerable.

This account of the exports of agricultural commodities will have made it clear that this trade is of importance to all the Northern Countries, but particularly so to Denmark, whose agriculture in its entire structure is based upon the production of animal foodstuffs for export. To what extent this is the case appears from *Table 8*, showing the quantity and value of the export of agricultural produce from each of the Northern Countries, and its share in the total exports.

It will be seen that the exports of agricultural products specified in the above-mentioned table reached the following figures in 1935:

*Agricultural exports in % of total exports.*

| | Denmark | Finland | Iceland | Norway | Sweden | Total |
|---|---|---|---|---|---|---|
| In £ 1 000 .... | 40 459 | 2 219 | 291 | 2 036 [1] | 5 145 | 50 150 |
| % of country's total exports | 74.7 | 8.1 | 13.5 | 5.8 [1] | 7.7 | 27.4 |

As already stated, exports of these dimensions in addition to the supply of the home market require large imports of grain and feeding stuffs, fertilizers, seed, agricultural machinery etc. as subsidiary materials in agricultural production. In 1935 the imports of these commodities, including bread-grain, thus amounted to about £ 20 mill. or 40 per cent. of the total exports of agricultural products from the North.

The foregoing will show to what extent the agriculture of the Northern Countries is based on international division of labour. The large exports of refined animal foodstuffs, the production of which necessitates a considerable purchase of raw materials from overseas, help to uphold that buying power which has placed the peoples of the Northern Countries among the best customers of the principal industrial countries of Europe.

[1]) Including furs.

CHAPTER IV.

# FISHING AND WHALING.

## THE SEA FISHERIES.

*Introduction.*

It is a fact that all the richest fishing banks hitherto discovered in the oceans are situated in the Northern Hemisphere. In the northern part of the Atlantic, off the coasts of Northern Europe and North America and in the Pacific around the Japanese Islands the sea contains enormous quantities of the most common edible fish, such as herring and cod and, besides, valuable stocks of halibut and other flatfish. The banks of the North Atlantic, around the Faroe Islands, Iceland and Bear Island, and the banks off the western and northern coasts of Norway are reckoned among the richest in the world. Particularly the waters to the south and south-west of Iceland seem to abound in fish, and the cod fishing carried on there during the spring months is without parallel in any other place in the world. In the seas of the world the greatest wealth of fish is thus to be found on the coastal banks, and the more extensive the banks that surround a country, the greater are the opportunities for that country of developing its fisheries.

On account of its extremely large number of islands and peninsulas Europe has a more extensive coastline in proportion to its area than any other continent, and in Europe the Northern Countries stand out by their wealth of islands and fjords and, consequently, by their long coastline, with numerous and extensive fishing banks. The configuration of these countries thus affords the natural conditions for a large fishing population,

partly on account of the abundance of fish and partly of the character of their surrounding waters. The influence of the Gulf-stream is also of marked importance. By the warming effect it exercises, especially on the climates of North Norway, the Faroe Islands and Iceland, as well as of the arctic coast of Finland, it transforms a frozen and barren waste into habitable territory, but apart from this its importance to the biology of the fish is paramount.

To this must of course be added the fact that a population living on islands and on the coasts of fjords will early aquire skill as seafarers. Through their physical and geographical conditions the Northern Countries have taught their children to travel at sea and to practise fishing.

*The development of fishing.*

The development of fishing in the Northern Countries may roughly be divided into three stages: the period of the coastal fisheries, the period of the sailing vessel and the period of mechanical propulsion. Everywhere fishing started as a means of procuring food for consumption by the seaboard population itself. Gradually the fishermen began curing the catch for sale on the home market and for export, but even then for a long time the fisheries were worked by open boats from fixed stations on shore. Later on sailing vessels came into use for fishing purposes. Longer trips were undertaken and, to a certain extent, the catch was cured on board the vessels. This was a long step towards more rational fishing. The third phase was marked by the introduction of engines as the means of propulsion, which development occurred especially in the last and previous generations. Motor craft and small steamers now plough the seas in search of fish on the large banks, often at a distance of several hundred miles from their home ports.

*The fishing fleet.*

The following table illustrates the distribution of the various types of fishing vessels among the Northern Countries. The difference of the types of vessels used is mainly due to the different character of the fishing waters. In the Icelandic and North Norwegian waters craft are required of another kind than those used in the less rough waters around Denmark, Sweden and Finland. Norway and Iceland use steamers to a much greater

extent than the other nations. The proportionally large number of open boats used in Norway, Sweden and Finland is accounted for by the fact that in these countries fishing is to a considerable extent coastal fishing, carried on with such boats in the protected waters just off shore. In Iceland trawl fishing has long been extensively used. At present that country owns 38 modern steam trawlers, the most up-to-date of which may, as a matter of fact, be characterized as small floating factories, where every part of the fish is utilized to the utmost; the cod is salted to make klipfish, from the cod-liver medicinal oil is extracted; the heads, backbones and other offals are dried and crushed to make fodder meal. Norway has also started trawl fishing, but so far this method of fishing is only of secondary importance in comparison with the other fisheries of that country.

None of the other Northern Nations practise trawl fishing on the large banks. The fishing craft most commonly used by all the Northern Nations are motor-boats of 15 up to 60 tons gross.

*Number and Types of Fishing Vessels in the Northern Countries in 1934.*

| Country | Steam vessels | Decked and half-decked vessels with motor | Decked and half-decked vessels without motor | Open boats with motor | Open boats without motor | Dories | Total |
|---|---|---|---|---|---|---|---|
| Denmark[1] .. | — | 6 248 | 1 841 | 3 400 | 7 712 | | 19 201 |
| Faroes .... | 1 | 303 | — | — | 1 517 | | 1 821 |
| Finland .... | 10 | 31 | 25 | 4 077 | 1 100 | 77 | 5 320 |
| Iceland .... | 69 | 254 | — | 736[2] | 134 | | 1 193 |
| Norway .... | 348 | 11 259 | 208 | 12 846 | 47 793 | 5 987 | 78 441 |
| Sweden .... | 20 | 2 322 | 31 | 4 994 | 11 856 | | 19 223 |
| Total | 448 | 20 417 | 2 105 | 26 053 | 70 112 | 6 064 | 125 199 |

*Participation in the fisheries.*

It will be seen from the following table that more than 170,000 persons in the Northern Countries are occupied in fishing. Including the fishermen's wives and children the number

[1]) Excluding the Faroe Islands.

[2]) Decked and half-decked boats, less than 12 tons included.

of people whose livelihood is based directly on the fisheries is about twice as large. In Iceland the vessels are generally the property of companies or individuals who hire crews to work on the boats against payment of fixed monthly wages and a part of the value of the catch. The same applies to the Faroe Islands whereas in the remainder of Denmark as well as in Norway and the other Northern Countries fishing is carried on chiefly by independent fishermen, owners or part owners of their vessels and outfit. To a large extent they do other work besides, chiefly farming, just as many plyers of other trades find an extra source of income in fishing. The percentage proportion of the population occupied in fishing is highest in Iceland with 6.8 per cent. while Norway stands second with 3.9 per cent.

*Number of Men Occupied in Fishing in 1934.*

| | Regularly | Occasionally | Total |
|---|---|---|---|
| Denmark ..... | 17 769[1]) | 5 944 | 23 713 |
| Finland ..... | 8 811 | 2 923 | 11 734 |
| Iceland ..... | | | 7 266 |
| Norway ..... | 74 076 | 36 729 | 110 805 |
| Sweden ..... | 13 346 | 10 093 | 23 439 |

*Fishing implements.* The implement first used in the Northern fisheries was the hand-line. It is still used to some extent by the Icelandic and Norwegian fishermen, and the Faroese have retained it almost to the exclusion of other tackle. The principal gear used for catching cod and similar kinds of fish is the cod-line with herring, sprat or caplin for bait. The question of the bait supply being of decisive importance, the development of cod-line fishing has gone hand in hand with that of refrigerating technique. Modern freezing plants have been erected all along the coasts of the Northern Countries.

Other kinds of fishing gear much in use are nets of all types, stationary nets, drift-nets and seines. Stationary nets are used both for cod and herring, drift-nets for deep-sea fishing, especially for various kinds of herring. The Danes have been inventors and pioneers in the use of the so-called »snurrevaad» (a kind of seine), the most efficient method for catching flatfish, whereas to the

[1]) Thereof 4,524 in Faroe Islands.

Norwegians and the Swedes is due the credit of having developed the purse-seine as the most perfect gear for the catching of herring and brisling. For the catching of herring drift-nets and trawls are also used. The height of perfection in net-technique was reached by the introduction of the modern trawl, which is used by Icelandic and Norwegian fishermen.

*The yield.*

It will be seen from *Table 9* that the catch of the sea fisheries of the Northern Countries in 1934 totalled more than 1 1/3 million tons, of a value of £ 8.4 mill.

*Table 10* shows that in 1934 82.6 per cent. of the total yield of the fisheries of Europe (not including the Mediterranean countries and the Soviet Union) are derived from North-European waters. The North-Sea banks yield the biggest share, 29.5 per cent., the Icelandic banks 19.2 per cent., and, as the next in order, the Norwegian Sea contributing 15.5 per cent.

The share of the Northern Countries in the total output of the fisheries of Europe (not including the Mediterranean countries and the Soviet Union) amounts to 40.4 per cent. in quantity, whereas their share of the total value is only 18 per cent. This is chiefly due to the fact that Iceland and Norway are large-scale producers. A large part of the catch is made up of herring used for the production of herring oil and herring meal, and the products resulting from the curing of the fish, viz. klipfish, stockfish and canned goods, are sold at lower prices than that part of the catch which it is possible to dispose of as fresh fish.

A comparison between some of the biggest fish-producing countries of Europe illustrates the part played by the Northern Countries in the fisheries. In 1933 the distribution of the catch was as follows (in 1,000 tons):

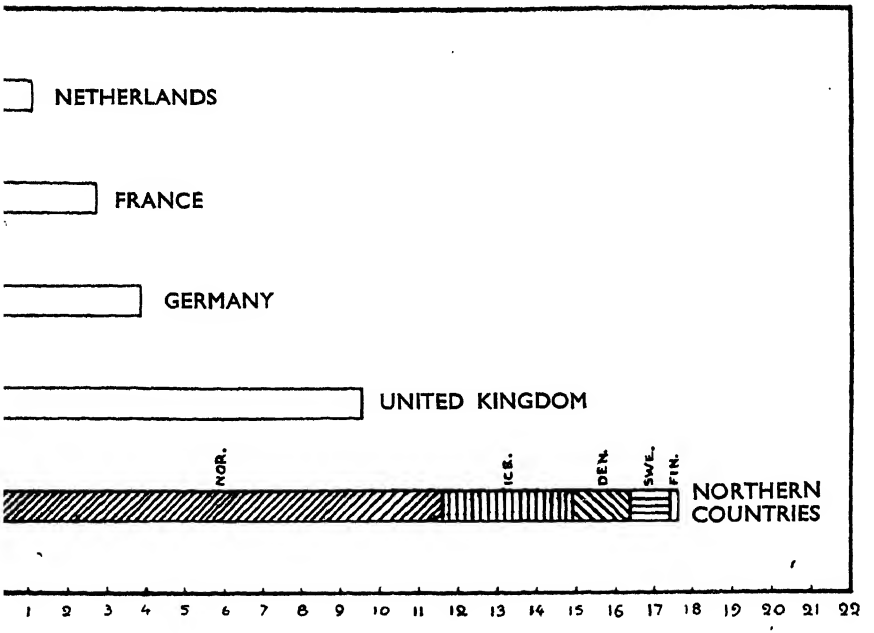
*Output of the Fisheries of Certain European Countries in 1933.*

| | |
|---|---|
| Northern Countries ..... | 1 765 [1]) |
| Great Britain ..... | 953 |
| Germany ..... | 387 |
| France ..... | 277 |
| Netherlands ..... | 111 |

[1]) Shares of the different countries: Norway 1,162, Iceland 328, Denmark 150, Sweden 100, and Finland 25.

*Output of the Fisheries of Certain European Countries in 1933.*

100,000 tons.




Norway is the leading fishing nation of Europe, as will be seen from the diagram above. The Norwegian share constitutes about $^1/_4$ of the total yield of the European fisheries, and little Iceland with her mere 117,000 inhabitants stands quantitatively fourth among the fish-producing countries of Europe.

If we consider the yield of each country in proportion to its number of inhabitants, Iceland proves to be by far the greatest fishing nation in the world. In 1933 the quantitative share per inhabitant of the different European countries was as follows:

*Yield of the Fisheries of Various Countries in lbs. per Head of Population.*

| | | | |
|---|---|---|---|
| Iceland ..... | 6 400 | Netherlands .... | 29 |
| Norway ..... | 897 | Finland ..... | 22 |
| Denmark ..... | 90 | France ..... | 15 |
| Great Britain .. | 46 | Germany ..... | 13 |
| Sweden ..... | 35 | Belgium ..... | 7 |

*Cod fisheries.*

The cod and »skrei», or winter cod, fisheries form the chief element of the Northern fisheries, both as regards quantity and value. In 1934 591,832 tons of cod of a value of £ 2.8 mill. were caught by the fishermen of the Northern Nations. The cod fisheries are seasonal. Late in winter or in early spring schools of cod make their way inshore towards the spawning grounds. While fishing takes place the greater part of the year along the Norwegian coast from Lindesness to Finmark, the large cod fisheries fall into two different seasons, at Lofoten from January to April and off the coasts in the Arctic Sea from April to midsummer. The greater part of the large Norwegian catches occur during these two seasons. Besides, out of the season, the Norwegian trawlers and line-fishing steamers and, to some extent, the larger motor-boats also go out in quest of a catch to the banks of Bear Island, Svalbard, Iceland and Greenland, whence they bring back large quantities of cod to be made into klipfish.

Similarly in Iceland home fishing for cod is pursued the greater part of the year somewhere or other along the coast, but the chief fishing is done during the early spring months in the waters south and south-west of the country. It generally commences in February, when the cod in immense schools move to their spawning grounds on the south coast of Iceland. It is a fact proved by the marking of numerous specimens that the cod migrate from the waters west of Greenland to Iceland and vice versa. When reaching maturity the cod from their very nature make for the warmer waters of the south coast of Iceland and, having spawned, millions return westward to the places whence they came and where they have grown up. The banks off Iceland contribute the largest contingent to the European cod fisheries.

Apart from the Faroese fisheries the Danish and, likewise, the Swedish cod fishing mostly takes place in the North Sea and the Cattegat, the catch being exported in fresh condition to the English and German markets. The fishing of the Faroese is of a special character, being pursued mostly with hand-lines from rather large motor-driven sailing vessels in Iceland and Greenland waters, which the vessels visit once or twice during the spring and summer. The catch is salted on board the vessels and

cured later on, mostly as klipfish. As regards Finland, a certain amount of cod fishing is carried on in the Polar Sea.

*Herring fisheries.* Herring fishing is carried on periodically by all the Northern Nations, especially by the Icelanders and Norwegians. The Norwegian herring fishing takes place in a series of seasons, viz. the »large herring», the »spring herring», the »fat herring» and the »small herring» season. It is carried on along the entire length of the Norwegian coast, especially off the western part of the country. The bulk of the catch is used for the herring oil and the herring meal industry, while the remainder is exported either iced in fresh condition or salted, or otherwise preserved, in barrels. In the Cattegat, the Skagerak and especially in the North Sea an extensive herring fishery is carried on by Northern vessels, mostly Danish and Swedish. The home fisheries of the Finns have for their chief object the Baltic herring (the »strömming»), the yield of which constitutes about 66 per cent. of their total catch and more than 33 per cent. of its value. Among the Swedish fisheries the herring fishery is by far the most important, both as regards quantity and value.

The Icelandic herring fishing takes place during the summer months in the fishing ground off the north coast; as a rule it is exceedingly rich. In addition to the Icelanders also Norwegians, Swedes and Finns take part in this fishery, some of them with numerous fishing vessels and mother-ships, and every year several hundred thousands of barrels of cured fish are carried home. The Finns during the last few years have been able to cover their home consumption from the Iceland fishery, whereas the Swedes are still buyers of Iceland herring.

*Table 9* shows the quantity and value of the yield of the herring fisheries, while *Table 12* shows the extent and the value of exports of herring.

*Flatfish.* As regards flatfish, Denmark leads among the Northern Countries. The principal gear used for flatfish is the Danish seine (the »snurrevaad»). The catching of flatfish — especially plaice — is most important to Denmark, as it constitutes one-third of the total value and one-fourth of the total yield of the Danish fisheries.

The catching of flatfish is also carried on to a large extent by the Norwegians and Swedes, and, also, in Iceland during the spring and summer months. Halibut fishing also plays an important part. The Norwegians have recently started catching halibut by means of nets at rather considerable depths, and the result has been very satisfactory. Besides, halibut fishing is carried on extensively on the banks west of Greenland. The Norwegians and Faroese participate to a large extent in this fishery. Halibut are caught by bait and carried home in a frozen or salted condition. Concerning the quantity and value of this fishery see *Table 9*.

*Other fisheries.*

In addition to the chief groups just mentioned, viz. cod, herring and flatfish, many other kinds of sea-fish are captured by the Northern Nations. To Norway the catch of brisling, salmon, dogfish and porbeagle is of great importance. Also the fishing of mackerel is pursued to a large extent from Norway, Denmark and Sweden.

In Iceland the catch of »Norway-haddock» has in the last few years developed into a large-scale industry. The liver of »Norway-haddock» is particularly rich in vitamins. It is removed from the fish and the oil is tryed out, while the fish itself is used for the production of oil in the factories. What is then left is dried and crushed into fodder meal. In 1936 the Icelandic yield of »Norway-haddock» totalled over 34,000 tons, or a good deal more than that of all the other European countries together.

*Crustaceans.*

There exists a valuable catch of shellfish, such as lobster, oyster, shrimps and crabs in Denmark, Norway and Sweden. Denmark has specialised in the catching of oyster. Norway leads in regard to the catching of crabs, lobster and prawns (*Table 11*). There is a large export of these shellfish from the above-mentioned three countries.

*Curing and export.*

A large part of the fish caught by the fishermen of the Northern Countries is exported fresh. In quantity fresh herring stands first, amounting to almost 30 per cent. of the total fish exports. Norway supplies 75—80 per cent., Denmark and Sweden the remainder, apart from a trifle from Finland and Iceland. In the second place stands frozen and iced fish, in regard to which Den-

mark is leading, followed by Norway and Iceland, Sweden and Finland. The third largest export commodity is the klipfish, regarding which Iceland comes first on the list with Norway as second and Denmark (the Faroes) as third. Next in importance is herring, salted and cured, which is an important export commodity. Norway is the chief producer, with Iceland in the second place. Norway is practically the sole producer of stockfish, providing in 1935 22,042 tons out of a total production of 22,271 tons, at a total value of about £ 0.8 millions. The chief consumers of this commodity are Italy and Africa. The lower part of *Table 12* gives an idea of the exports of fish products generally. They amounted to more than 171,000 tons in 1935, almost 82 per cent. falling to the share of Norway and over 15 per cent. to that of Iceland.

As regards value *(Table 12)* the exports of fish and fish products in 1935 totalled more than £ 11 mill. Of this total fresh fish accounted for more than 23 per cent., klipfish more than 17 per cent. and tinned goods almost 15 per cent. Norway stands in the first place with an export of £ 7 mill., Iceland with 1.8, Denmark with 2.0 (whereof the Faroe Islands with 0.3), and Sweden with 0.4. The chief export commodity from Denmark, Finland and Sweden is fresh and frozen fish, from Iceland klipfish and from Norway, above all, tinned goods. *Table 13* illustrates the distribution of the exports among the various countries. The chief consumer is the United Kingdom, which in 1935 bought fish and fish products from the Northern Countries to the value of £ 2.4 millions.

## INDUSTRIES BASED ON THE FISHERIES.

*The tinning industry.*

Considerable industries have grown up based on the products of the fisheries, especially in Norway and Iceland. *Table 12* will give an idea of the importance and character of these industries.

In the front rank stands the tinning industry of Norway. Norwegian brisling and various types of tinned herring and crustaceans are known the world over. As will be seen from *Table 12*, these exports amounted to no less than £ 1.7 millions in the year 1935. A tinning industry of some importance, producing with a view to export, is also found in Sweden and Denmark and, to a

somewhat smaller extent, in Finland. In Iceland the tinning of shrimps has been started.

*Herring oil and herring meal.*

Next should be mentioned the large-scale industry that has grown up in Norway and Iceland in connection with the great herring fisheries. Here Norway takes the lead with her 60—70 herring oil mills all along the western coast of the country. The oil is squeezed out of the herring and the remnant is then dried and crushed into meal, a very valuable feeding stuff.

Iceland at present has 17 herring oil factories, the capacity of which is still being augmented. Some of the biggest plants belong to the State and are operated by it.

*Medicinal cod-liver oil.*

For many years Norway has been the leading country in the production of medicinal cod-liver oil, the quality of which is recognised all over the world. In 1935 the export amounted to 9,400 tons, while Iceland, where the production of this most important medicine is somewhat smaller, in the same year produced and exported 4,300 tons, mostly to North-American markets. In both countries the production is carried on under the most hygienic conditions.

Other kinds of fish oil for various industrial purposes are also exported from these countries.

## THE CATCH OF FRESH-WATER FISH.

In the Northern Countries the fresh-water fisheries are of considerably less importance compared with the sea fisheries.

The most valuable among the fresh-water fish are salmon, which are caught in all the Northern Countries in rather considerable quantities, both in the salt sea and in the less saline waters of the Baltic and its creeks. The catch, which takes place especially during spring and early summer, is undertaken with bag-nets and, to a certain extent, with drift-nets and »storryssja». In a less degree salmon are caught in the rivers. From all the Northern Countries, but especially from Norway, noticeable quantities of salmon are exported, chiefly in fresh condition. In addition a considerable quantity of eel is caught, mainly in the Danish waters.

The most common fish of the lakes and rivers are trout, pike, perch, roach, bream and burbot. Finland and Sweden having tens of thousands of lakes, the catching of such fish is of especial importance to those two countries. The bulk of the catch is used for home consumption. The same kinds of fish are also found in the Gulf of Finland and the Gulf of Bothnia, where the salinity of the water is slight. These fish are caught on a commercial scale. In the Icelandic rivers and lakes, however, only trout and trout-like fish and char are found. The Danish sea-trout fishing is particularly valuable in certain fjord districts, and it is only in a few water-courses that the catching of trout attains any economic importance.

The rivers and lakes of Finland, Iceland, Norway and Sweden offer great opportunities for anglers, especially as regards salmon, trout and sea-trout. In several places there is an increasing interest taken in the furthering of amateur fishing by the planting out of fry.

The hatching of fresh-water fish is practised to a great extent in Sweden, Finland and Norway with a view to the planting out of fry in free waters. The most important kinds hatched are sea-trout, trout and fresh-water herring. In Denmark such hatcheries are usually connected with breeding-ponds for the raising of various kinds of trout. The production of trout for export has of late years reached a considerable volume. Besides, a good deal of roe, chiefly from sea-trout, is hatched. Also in South Sweden the culture of trout as well as of carp is practised, mostly for home consumption.

The fishing industry and the exportation of fish play a most prominent part in the economy of the Northern Nations. With only 16 $^1/_2$ million inhabitants out of the European total of 521 millions, yet these nations considered as a whole may be regarded as one of the great powers in the sphere of fisheries. The high standard of quality which Northern fishing and curing of fish and fish products have achieved to-day is the result of the intense efforts, carried on for decades, to bring into the market only indubitably first-class products. Great sums have been spent by the

State and by private persons to attain this end. From the time they are caught on the coasts or on the great deep-sea banks until the time they reach the foreign purchaser the fish are subjected to the most careful handling. This is equally true of the fresh fish, the salt fish, the stockfish, the tinned goods and all the by-products of the fisheries, such as oil and meal, roe and cod-liver oil.

In their strenuous endeavour to maintain their acknowledged position in the fishing trade the Northern Nations make use of the technical resources of our times. They are always looking for improvements, for new methods; they are always striving to attain the highest standard, to the equal benefit of the producing countries and of the consumers.

## WHALING AND SEALING.

The hunting of whales dates a long time back. In the 17th and 18th centuries whaling on a large scale was pursued in the northern regions, especially by Englishmen and Dutchmen and, later on, also by Americans. At times the hunting assumed enormous dimensions. The whales caught were almost exclusively right-whales, and what was utilized of the whale was the oil, which was tryed out of its thick layer of blubber, and in addition, the valuable whalebone. The stock of whales, however, gradually thinned and whaling greatly decreased.

In its modern form whaling was founded by the Norwegians, who introduced a new weapon, the bomb-harpoon, and small powerful steam-boats (catchers), thereby entirely revolutionising the character of the whale hunting and making it possible to take up the catch of the large fin-whales (blue, fin, hump-back and sei-whales). At first whaling in this form was restricted to the Norwegian coastal waters and to the waters around Iceland and the Faroe Islands etc. It was only when it had been transferred to the Southern Hemisphere, in 1904—05, that whaling developed into the large-scale industry of to-day. In the enormous areas round the South Polar ice cap thousands of whales are killed every year and oil is produced in such quantities that it has grown to be an important factor in the world's supply of fats.

Whaling is chiefly pursued in the open sea by means of large floating factories, where the whales are hauled on deck to be flensed and utilized. Such a ship is like a big factory with the best modern technical equipment. The biggest of these vessels are of more than 18,000 tons gross.

While previously whaling was a specifically Norwegian trade, several other countries now take part in it. Among the Northern Countries, however, it is chiefly Norway that carries on this trade. Of the total world production of whale oil at present more than 40 per cent. falls to expeditions flying the Norwegian flag. Until quite recently also the foreign expeditions have been manned almost exclusively by Norwegian crews. Moreover, these expeditions have to a great extent been managed from Norway.

The Norwegian whaling fleet in operation in 1936 totalled 184,000 tons gross. In the 1935/36 season the expeditions under the Norwegian flag killed 15,700 whales and produced 197,000 tons (value about £ 3.6 mill.) of oil out of a total world production of 486,000 tons. (*Table 14*). The volume of the catch culminated in 1930/31, but in later years the whaling industry has been placed under restrictions. In order to protect the whale from extermination various measures have been introduced for the purpose of restricting the catch.

Whale oil is a raw material of high value, which is chiefly used in the margarine industry and, also, in the soap industry. For the refinement of the whale oil a special industry has grown up in Norway, and large quantities of the products are exported as hardened oil. During recent years this export has amounted to more than 50,000 tons, of the value of about £ 1 million. However, the bulk of the whale oil is delivered direct from the whaling grounds, especially to Germany, Great Britain, Netherlands etc.

Sealing is also a typically Norwegian trade. It is carried on partly in the waters around Nova Zembla, partly along the edge of the ice in the direction towards Greenland, by small steam and motor vessels. Oil is extracted from the seal and, besides, the skin is a valuable commodity. The value of the catch during the last few years has averaged more than £ 100,000.

CHAPTER V.

# FORESTRY AND WOODWORKING INDUSTRIES.

*Introduction.*

It would almost seem that in compensation for their remote northerly situation Finland, Norway and Sweden have, through their extensive forest areas, been blessed by nature with gifts which have supplied them with a unique beauty of their own and at the same time provided them with valuable economic resources. Apart from their timber resources, the Northern Countries possess many natural advantages for the industrial working of forest products, such as excellent floating and transport facilities, plentiful water-power supplies from the numerous rapids, relatively favourable shipping facilities and harbours open even during the winter season, thanks to the assistance of ice-breakers. Forestry and the various branches of the woodworking industries provide an illustration of one of the most outstanding features of the economic life of the Northern Countries, and developments seem to show that the possibilities of further progress are still far from being exhausted. The history of the timber trade in general in the Northern Countries reveals a development from West to East and shows how the woodworking industries, influenced by various external and internal circumstances, have developed into their characteristic position in the respective countries. For the main part Norway, with the smallest forest resources, has already passed the sawmill stage and now concentrates her main interests on the higher phases of the woodworking industries. Finland at the other end of the scale has the centre of gravity of her woodworking industries balanced on the production of sawn goods and semi-manufactures. The Swedish industry lies between these two

stages of development, still with a considerable manufacture and export of sawn goods, although even these are more worked than the Finnish products.

Denmark has also developed a woodworking industry of her own, which, however, owing to the meagre forest resources is largely dependent on imported raw material. The main portion of the output is consumed in the country, and exports are chiefly confined to special lines manufactured from Danish beech.

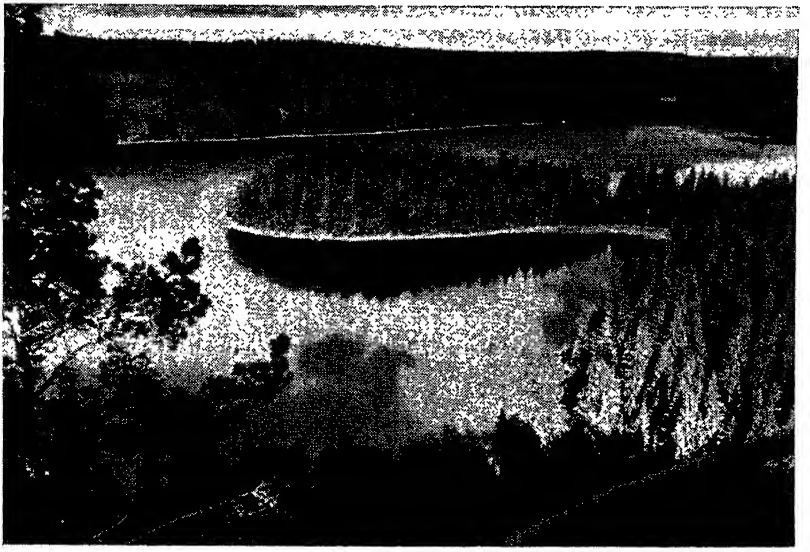
## FORESTRY.

*Area.* From a botanical and geographical point of view Finland, Norway and Sweden belong to the northern coniferous zone, which is to say that pine and spruce find their natural conditions of growth in those regions. The total forest area of Finland, Norway and Sweden amounts to about 53 million hectares, of which 45 million hectares consist of coniferous forests corresponding to 25 % of the total coniferous forest area of Europe. If Russia's enormous forest resources, not utilized for the main part owing to unfavourable transport facilities, are omitted, the Northern Countries possess no less than 56.2 % of the total coniferous forest resources of Europe.[1])

According to recent calculations, the total forest area of Sweden amounts to about 23 million hectares, or 56.5 % of the total land area. This is equivalent to an average forest area of 3.8 hectares per inhabitant. Forest products in the form of sawn goods, pulp and paper occupy a prominent position in Sweden's exports, and during recent years have amounted to 40—50 % of the total value of the exports from that country.

Finland, for her size, has the largest forest resources of any European country. Her forests extend over an area equal to the forest area of Sweden, i. e. about 23 million hectares, corresponding to no less than 67.2 % of the total land area.

[1]) The following figures differ somewhat from the results obtained at the valuation of the State forests in the Northern Countries. This is due to the fact that the figures given in the documents used as sources have been reduced to commensurable measures.



VIEW OVER LAKE AULANKO
NEAR HÄMEENLINNA IN SOUTHERN FINLAND.

This corresponds to about 6.4 hectares of forest per inhabitant. Owing to the relative scarcity of other natural resources Finland, more than any other country, is dependent on her forests, which is clearly apparent from the country's exports. During the last few years as much as 80—90 % of the total exports have been composed of more or less worked forest products.

The forests of Norway cover some 7 million hectares, or 23.5 % of the total land area. In comparison with Sweden and Finland the percentage of forest in Norway is consequently comparatively low. This is explained by the alpine character of the country, where almost 75 % of the land area consists of barren fell regions. Put in relation to the population the Norwegian forest area gives a figure of 2.5 hectares per inhabitant.

The division of different species of tree in the Northern forests will be seen from the following table[1]):

[1]) All figures in this table as well as in the following text mean solid $m^3$ exclusive of bark.

| | Sweden | | Finland | | Norway | |
|---|---|---|---|---|---|---|
| | Mill. m³ | % | Mill. m³ | % | Mill. m³ | % |
| Pine ..... | 573 | 40.4 | 661 | 48.2 | 90 | 27.9 |
| Spruce ..... | 596 | 42.1 | 405 | 29.5 | 171 | 52.9 |
| Other species .... | 248 | 17.5 | 305 | 22.3 | 62 | 19.2 |
| Total | 1 417 | 100.0 | 1 371 | 100.0 | 323 | 100.0 |

*Growth and cutting.*

The annual growth, which in continuous forest exploitation should approximately replace the annual cutting, is in Sweden 47.7 million solid m³. Of this amount 79.7 % is coniferous and the remainder foliferous wood. On the average, Finnish forest land is more barren than Swedish, so that the growth is lower, i. e. 44.4 million m³, of which 72 % is coniferous. The total growth of the Norwegian forests is in round figures 10 million m³, of which 83 % is coniferous wood.

The average growth per hectare of forest land is 1.99 m³ in Sweden, 1.91 m³ in Finland and 1.35 m³ in Norway. It should be noted that these figures by no means indicate the maximum production capacity of the forests. The yield of the forests is however increasing, thanks to rational forestry measures, above all felling methods aimed at growth promotion, and improvements to forest land in the form of ditching.

The forest area of Denmark covers only some 0.35 million hectares, i. e. about 8 % of the whole country; it is, however, increasing, thanks to rational forestry methods. Moreover, it is worthy of note that Denmark, by the planting of timber on moors and other desolate wastes, has doubled its coniferous forest area during the last century. The total annual growth of 2 million m³, almost equally divided between coniferous and foliferous forests, indeed represents a notable result, taking the small forest area into consideration, a result made possible by good climatic conditions and highly developed forest culture. The output of coniferous forest timber is insufficient, however, to satisfy more than a fraction of the country's requirements.

The exploitation of the forests in the Northern Countries is on the whole kept within the bounds of the annual growth. During certain periods it may happen that local over-cutting occurs, but this is counterbalanced by the increasingly strict maintenance

of sound forest exploitation principles. According to the last available figures the annual felling in Sweden was approximately 41 million solid $m^3$, including wastage and loss by floating; in Finland 39 million $m^3$, and in Norway about 10 million $m^3$. If from the combined total annual growth of the three countries, i. e. 102 million $m^3$, we subtract the total amount exploited, i. e. 90 million $m^3$, we obtain a surplus of 12 million $m^3$. Of this amount, however, a considerable part represents forest growth which owing to transport difficulties and economic conditions could not be utilized up till now.

*Value of annual forest yield.*

Owing to the manifold sorting and working methods it is impossible to make an exact estimate of the value of the worked-up timber. On the other hand, however, the tremendous value of the annual yield from the Northern forests can be seen from a few illustrative examples. The total yield for Finland, Norway and Sweden amounts to approximately 100 million $m^3$, or in dry weight, 50 million tons. This amount of timber, if converted into sawn goods, would correspond to 10—12 million stds, and would considerably exceed Europe's entire annual requirements of sawn coniferous timber. If on the other hand the forest growth of the Northern Countries should be converted into chemical woodpulp — cellulose — this growth would yield 20 million metric tons, i. e. the whole world's present requirements of cellulose for more than two years. Although we are to regard this as mere speculation it shows the significance of the annual growth of the North European forests.

*Distribution of forest yield.*

In the Northern Countries the need of wood for household purposes is great, principally in the form of fuel and building wood. In Finland household consumption forms the main item in the timber balance, with about 15 million $m^3$, or $^1/_3$ of the annual forest growth. The corresponding figures for Sweden, with double the population, are estimated at about 11 million solid $m^3$. The consumption of wood for household purposes in Norway is supposed to amount to only some 3 million $m^3$.

While the need for wood fuel is on the decrease in all countries owing to the introduction of various substitutes and to the strides made in technical development, the demand for wood for the saw-

mill industry and as raw material for the cellulose and paper industry has risen rapidly. Coniferous wood is the principal raw material for these purposes. When one considers that $^3/_4$ of the world's total wood consumption consists of coniferous wood, and that only $^1/_3$ of the world's forests are coniferous, and that about half of these forests are so situated that they cannot be economically utilized, one realises that the coniferous forest supplies are of tremendous importance to world economy. President Coolidge's supposition that »the struggle for timber» will within the comparatively near future become the most important phenomenon in economic life, similar to earlier struggles for coal and iron resources, appears to have considerable foundation on fact.

Sweden and Finland, together with the U.S.S.R., are the leading producers of sawn goods in Europe and it is calculated that the sawmills in the two former countries consume about 12 million m³ of wood each annually. The corresponding figure for Norway is at times somewhat more than 2 million m³. The paper industry in Sweden utilizes about 12 million m³ annually; in Finland the consumption of paper- and pulpwood amounts at present to about 7 million m³, while the annual amount of wood consumed by the Norwegian paper industry totals about 4 million m³. In this connection it may be mentioned that the Finnish paper and cellulose industry is passing through a period of powerful expansion, and that in the near future its wood requirements will equal the corresponding figures for Sweden. Finland is the only country exporting unworked wood-goods in any quantities worth mentioning, i. e. about 3 million m³ annually, of which more than half consists of pitprops and poles, the remainder being chiefly pulpwood.

Among other forms of wood utilization should be mentioned that of charcoal-burning in Sweden, amounting to about 2 million m³, and the consumption of wood for fuel by the Finnish State Railways to the amount of about 1 million m³.

*Distribution of forests according to owners.*

Owing to the great importance of forestry in the national economy of Finland, Norway and Sweden the distribution of forests among different classes of owner is also a factor of especial

interest. The development of ownership conditions in the three countries has on the whole been influenced by similar historical and geographical factors. The holdings of the State are concentrated chiefly in the remote forests of the north and the barren forest tracts of the watersheds, while the privately owned forests, mainly those belonging to farmers, have lain since ancient times around the estates in the more fertile and more densely populated areas. The forests owned by the woodworking industries, on the other hand, which were acquired at a later date — partly by the purchase of private landowners' estates and partly, particularly in Sweden, by the purchase of State-owned forests — are generally situated outside the populated areas proper.

In Sweden and Finland the State forests date back to the year 1542, when King Gustav Vasa decreed that all waste land, including large forest tracts, was the property of the Crown. In this way the State forest holdings, particularly in sparsely populated Finland, became very extensive. The forests belonging to the Finnish State, embracing 39.8 % of the country's total forest area, are principally situated in northern and eastern Finland. 51 % of the forest areas are under private ownership, while the companies have acquired only 7.5 % of the forest territory. Of this latter figure about one-third is owned by concerns in which the State has a majority share. The rights of companies to land-ownership are restricted by law and will hardly increase to any degree worth mentioning. The remaining 1.7 % belongs to communities and parishes.

Development in Sweden has been along somewhat other lines. With the introduction of new liberal ideas on the subject of national economy at the beginning of the 19th century, considerable areas of the Crown forests were sold or turned over to the companies, principally iron works, which required large supplies of wood for their mining activities. It was not until the great rise in timber prices on the international market in the middle of the last century that the State realised the enormous value represented by the forests, and consequently began to take care of its forest resources and even to repurchase on a growing scale. At present the State owns 18.7 % of the forest area of Sweden, 27.1 % are in the hands

of companies, while the greater portion, i. e. 49.1 % is privately owned. Communities and parishes own 5.1 % of the country's forests.

In Norway the State owns 10 % of the forest area. These State-owned forest areas are situated mainly in the north and consist principally of very meagre mountain forests. The forest areas owned by communities embrace about 10.3 %, i. e. a somewhat similar area to that owned by the State. The major portion, however, no less than 70.7 %, is privately owned, principally by the agricultural population, and is practically all divided into small forest plots. The companies, mainly those engaged in woodworking, must, as is the case in Finland, content themselves with a relatively small portion, i. e. 9 %.

## THE WOODWORKING INDUSTRY.

From the earliest times the products of the Northern forests have been known on the European export market, first shipped as baulks, masts and tar for the requirements of the shipbuilding industry of that period. Especially the production of tar by distillation of wood dominated the early stages of the woodworking industries of the Northern Countries. During the 17th and 18th century the tar was thus the chief export article manufactured from wood, considerably exceeding exports of, for instance, sawn timber. Owing to an increasing demand for wood for shipbuilding purposes and later on as a raw material for the pulp and paper industries the production of tar by and by lost its importance for the Northern Countries' woodworking industries. During the last decades exports expanded all along the line and found their way into ever widening circles, so that the products of the Northern forests are known — and well-known — in practically every importing country in the world.

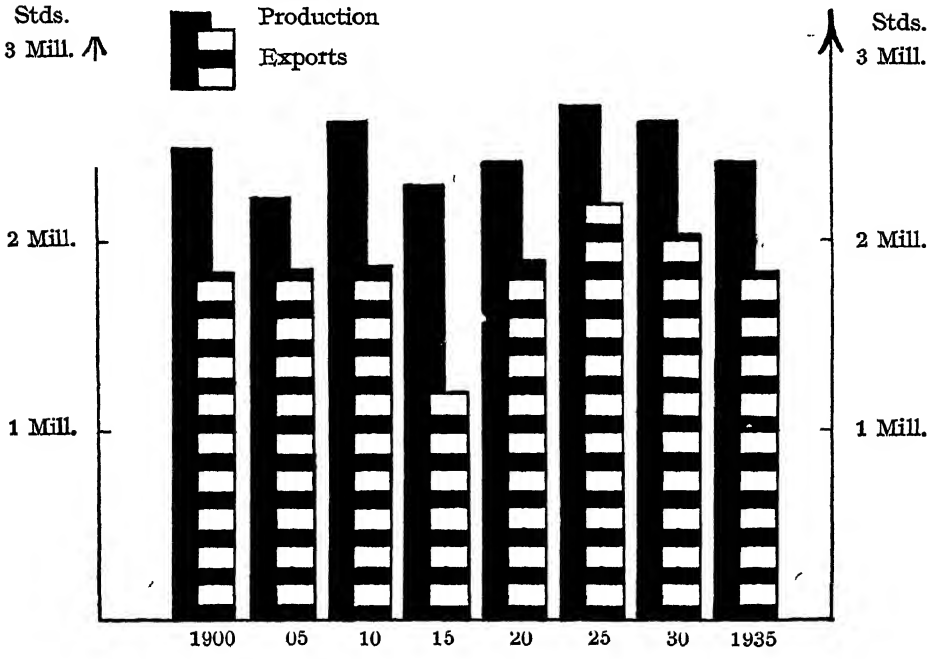
*Sawmills.* In medieval times exports of forest products were restricted to round timber and tar. The best customers were the Hanseatic cities and the Netherlands, which required large quantities of these products for their shipping.

The introduction of water-driven sawmills, about the year 1420 in Germany, and their general adoption in the Northern Countries during the 16th century, ushered in a new epoch in the history of the woodworking industries of these countries. Norway in particular, whose waterfalls all over the country presented admirable sites for such enterprises and where shipping facilities were favourable throughout the year, soon developed a sawmill industry of, for that period, imposing size. Owing to a general fear of over-exploitation the sawmill industry in Sweden and Finland, on the other hand, was considerably hampered by legislation. During the first half of the 17th century Sweden together with Finland exported only 1,000—1,500 stds of sawn goods annually to the neighbouring Western Europe, while exports from Norway amounted to 50,000 stds. Even at the beginning of the 19th century the combined annual exports from Sweden and Finland were no more than 30,000 stds, against Norway's 250,000 stds.

The 19th century brought with it a series of changes in economic life which also put the sawmill industry of Sweden and Finland in an advantageous position. The penetration of liberal ideas in the course of that century loosened little by little the legal restrictions binding the various trades, and thus in the middle of the century the sawmills were allowed to use steam power. When, therefore, the import duties on timber in the leading importing countries, England and France, were reduced at more or less the same period, to be finally abandoned altogether, there came a big boom in wood-goods, of which the sawmill industry of Sweden and Finland was ready to take advantage.

The universal adoption of steam power had an outstanding influence on the development of the sawmill industry. As a supply of sawmill waste had solved the power problem irrespective of geographical situation, the new sawmills were first founded, with an eye to suitable shipping facilities and cheap sources of raw material, at the mouths of the larger floatable waterways. In this way a thriving sawmill industry soon developed around the Gulf of Bothnia and at the river mouths

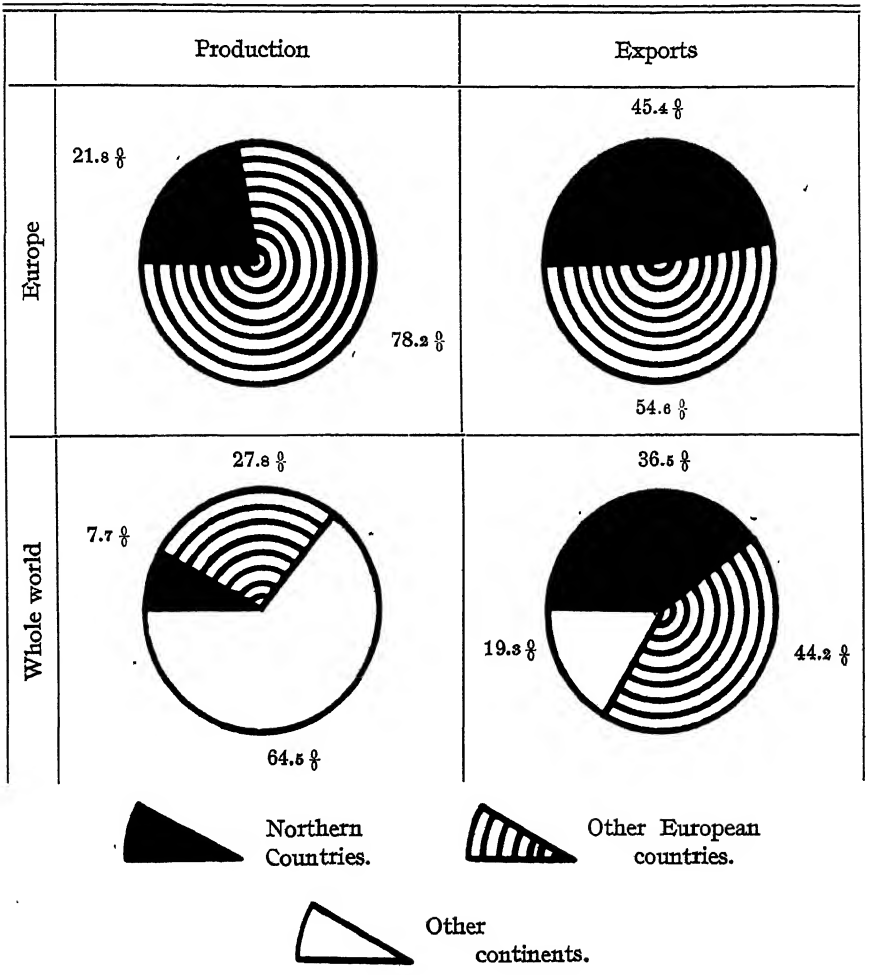
*The Northern Countries' Production and Exports of Sawn goods.*




on the shores of the Gulf of Finland. Norway was soon left behind in exports of sawn goods by her eastern neighbours, who possessed greater forest wealth. Her exports of sawn and planed coniferous timber, which have been on the decline during the last decades, amount at present to hardly more than 40,000 stds. This drop is mainly due to the fact that the flourishing woodpulp industry demands a large portion of the available raw material.

The period of prosperity referred to above was soon followed by a critical depression, with a heavy slump in prices on the Western European market, and during the following decade the sawmill industry had to fight against adverse conditions, which hampered its development. During the 'eighties and particularly in the first half of the 'nineties the world market situation eased and a new era with new possibilities for the sawmills began. The

*The Northern Countries' Share in the Production and Exports of Sawn Goods of Europe and the World in 1933.*




discovery of the process for producing sulphate cellulose made possible the economic utilization of sawmill waste on a hitherto undreamt of scale, while simultaneously the manufacture of battens, laths, staves and box-boards made possible the rational utilization of small timber. Since the Great War the sawmill

industry in the Northern Countries has shown little development from the point of view of quantity. The development of the production and exports of sawn goods of the Northern Countries from 1900 onwards is indicated in diagrams on the pages 62 and 63, with corresponding figures in the table section *(Table 16)*.

*Manufacture of boxes and plywood.*

On the other hand, thanks to technical improvements, great strides have been made as regards the utilization of timber. The proportion of planed timber has risen to a noteworthy degree, and the production of box-boards and other smaller sawmill products has increased in relation to the total of sawn products.

Her great birch resources have presented Finland with an opportunity for an imposing development of two industries utilizing this type of wood — the plywood and spool industries.

About 30 % of all plywood and more than 50 % of all birch plywood on the international market originate from Finland, and the Finnish plywood industry is experiencing a period of powerful expansion. Pine plywood is manufactured also in Sweden and Norway. Finland has always occupied the foremost position in the manufacture of bobbins and at the present time produces about 80 % of the world's supply, while Sweden follows with 12 %.

*Joinery mills and furniture factories.*

The furniture and joinery industry in the Northern Countries has been characterized by expansion and development during the last few decades, and exports of doors, windows and portable houses, particularly week-end cottages, as well as furniture, show rising figures.

*Other timber manufacture.*

The world-famous Swedish match industry has been able to draw upon the rich supply of aspen in Sweden and Finland, aspen being the most suitable raw material for the manufacture of matches. As this branch of industry is, however, included in the chemical industries, it will not be treated in this chapter.

## PAPER AND CELLULOSE INDUSTRIES.

Only a few decades after the sawmill industry, owing to the general adoption of steam sawmills, had begun to exploit the Northern forests on a large scale, a new and epoch-making utili-

zation of the coniferous forest resources made its appearance in the form of the mechanical pulp industry.

During the first half of the 19th century the paper industry of the entire world entered a blind alley owing to the fact that the supplies of raw material of the time — rags — could not keep pace with the unprecedented growth in demand. When, therefore, in 1844, the news that paper had been successfully manufactured from wood in Germany spread round the world, the supplies of raw material increased at once, and new possibilities for industrial activity were given to those countries possessing abundant forest resources.

At the outset woodpulp for paper manufacture was produced by the mechanical method only, i. e. by the grinding of wood against revolving stones under high pressure with plentiful supplies of water for the reduction of friction and consequent heat. Paper manufactured from this mechanical woodpulp by the technical methods available at the time proved, however, to be hard and to lack durability, even though the addition of rag fibre to the woodpulp corrected this fault to a certain extent. The invention of the chemical process of producing woodpulp therefore was of the utmost importance for the industry. In 1853, at more or less the same time, an Englishman and an American took out patents for a process by which chips of wood were cooked in soda lye, by which a clean cellulose fibre, soda pulp, was obtained. When after that the hydroxide was displaced by sodium sulphate the so-called sulphate cellulose was introduced. This cellulose proved to be a highly suitable material for mixing with mechanical woodpulp for the manufacture of paper. Sulphite pulp produced by the cooking of wood chips in calcium bisulphite was made for the first time on a commercial scale in 1872 by the Swedish engineer Carl David Ekman. Sulphate cellulose as a material for paper manufacture was found to satisfy very exacting demands, for the strong sulphate fibres gave the paper great strength, which made this material particularly suitable for the manufacture of wrapping papers, among which the well-known Kraft paper occupies a prominent place. On the other hand the soft sulphite pulp, especially after bleaching was introduced, was

eminently suitable for varied use in the manufacture of the finer qualities of paper. Different combinations of the semi-manufactures, and different proportions of chemicals and other variations in production methods provided enticing possibilities from the very beginning for the forming of various characteristics in the paper. This finally led to the manifold qualities which we now find on the paper market.

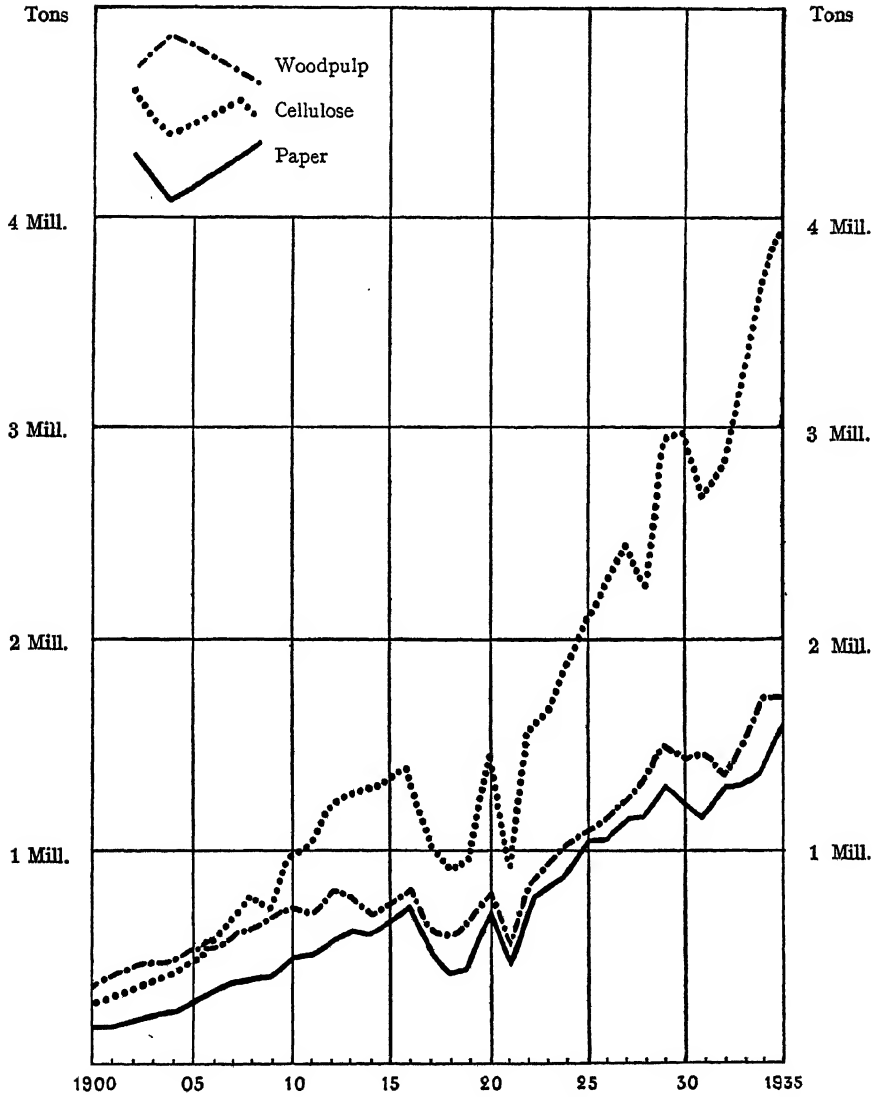
In this connection one should also bear in mind that in addition to the general usefulness of paper, newsprint, the grade of paper with the largest consumption, is of quite particular importance in modern life. As long as paper remained comparatively expensive, cheap newspapers with a large circulation were naturally out of the question. Only after the introduction of paper manufactured from wood was it possible to print cheap newspapers for practically unlimited distribution, without which it would have been impossible to maintain modern democracy. Thus the consumption of the forest resources, especially in the Northern Countries, may be said to have had a decisive influence on present general and political developments.

The production of board and cardboard, which are at present the products of important industries in the Northern Countries, developed in close connection with the manufacture of paper from woodpulp.

*Development from an insignificant beginning to dominating export industries.*

The introduction of woodpulp and cellulose into the paper industry was of revolutionary importance in the industrial and economic life of the Northern Countries owing to their abundant resources of coniferous forests. A continuous erection of woodpulp, cellulose and paper mills occurred in those countries from the beginning of the 'sixties. The pioneers of the new paper industry had nevertheless to combat great difficulties, and therefore the first real building boom was delayed until the 'seventies and 'eighties, to be subsequently followed by a slight depression. A new era of powerful expansion occurred around the turn of the century, an expansion which proceeded at an ever-increasing pace until the Great War, when the consequent great disturbances to industrial activity caused a temporary decline in production.

*The Production of Woodpulp, Cellulose and Paper in the Northern Countries since 1900.*



A glance at the curves of production of the combined pulp and paper industries of the Northern Countries on the previous page (corresponding figures in the table section, *Table 18*) shows a powerful rising trend for all these branches of industry. The adverse effects of the Great War made themselves felt — if the temporary boom in the paper industry of 1920 be excluded — until the first years of the 1920's. Production figures then rose again until 1929, when the last depression created a decline in production for three years. The year 1932, however, ushered in the latest era of development in the Northern paper industry, with new building activity and modernisations to existing plant, causing the production curve, particularly as regards semi-manufactures, to show once more a steep rise.

If the war years and minor fluctuations be disregarded, each curve will be seen to indicate its characteristic rate of progress. Of the three curves, the one indicating paper production shows a steady rise, interrupted in its almost straight course by a drop caused by the Great War. This interruption in the normal development of the paper industries of the Northern Countries embraces the period 1916—1924. The curves for mechanical pulp and cellulose are not as steady as that of paper, although in these cases also certain characteristics can be seen. The production of mechanical pulp has not increased quite as rapidly as that of paper, but on the other hand the cellulose industry has gone ahead much more quickly. In 1933 the weight of cellulose produced in the Northern Countries represented 53 % of the total of the three products in question, against only 34 % for the year 1900. The rapid progress has been made at the expense of mechanical pulp production which, it is true, also rose in absolute figures during this period of 33 years, as shown in the curves, but in percentage fell from 44 % to 25 % of the total production of the paper industries. The production of paper has been constant at 22 %.

The growing output of the woodworking industries of the Northern Countries has been made possible partly by a continually increasing forest exploitation and partly by extensions of plants and technical improvements. In the extensions of the

woodworking industries the so-called integration principle is generally followed, which means that the trend is to complete production processes either in a forward direction by further refining, or in a backward direction by the production of semi-manufactures and the purchase of forests. As the principles of continuous forestry do not at present permit the Northern Countries to increase the felling of forests to any noticeable extent, integration is the natural road for a further increase of the productive value of the woodworking industries in these countries. A singularly fortunate circumstance in this connection is the fact that the further intensification of one branch of the industries does not in general necessarily occur at the expense of another. For integration leads in many cases to a better utilization of the raw materials or to a higher stage of manufacture.

In order to illustrate the various specialisation tendencies of the woodworking industries in the Northern Countries we will first examine the utilization of the small timber left over by the sawmills. Originally no other use was found for this material than for firewood, while the remainder was burnt as refuse. Later the utilization of small timber for charcoal-burning purposes increased, besides which the manufacture of laths, staves etc. from sawmill waste was begun. The largest and most effective use for this material was nevertheless provided by the sulphate cellulose industry, for which sawmill waste is eminently suited. The ever-increasing combination of sawmill and sulphate mill is an eloquent testimony to this fact.

The cellulose industry is expanding along the new lines provided by the manufacture of various refined products such as rayon, artificial wool, cellophane, explosives, celluloid, collodian and cellulose lacquer, and also by the manufacture of all kinds of by-products such as sulphite alcohol, yeast, cymol, turpentine, rosin, methyl alcohol, pine-oil and soft soap. We refer in this connection to the diagrammatic explanation of the various branches of the woodworking industries on page 71.

In the paper industry the integration principle has been particularly important and at present only a comparatively small num-

ber of paper mills are without their own pulp mills. The reason for this development has been the increasing demand of the paper mills for an absolutely uniform quality of pulp; this need can be satisfied much more easily by manufacturing pulp at a company's own mill than by buying it from other mills. Costs of production are also as a rule lower for paper mills possessing pulp mills of their own.

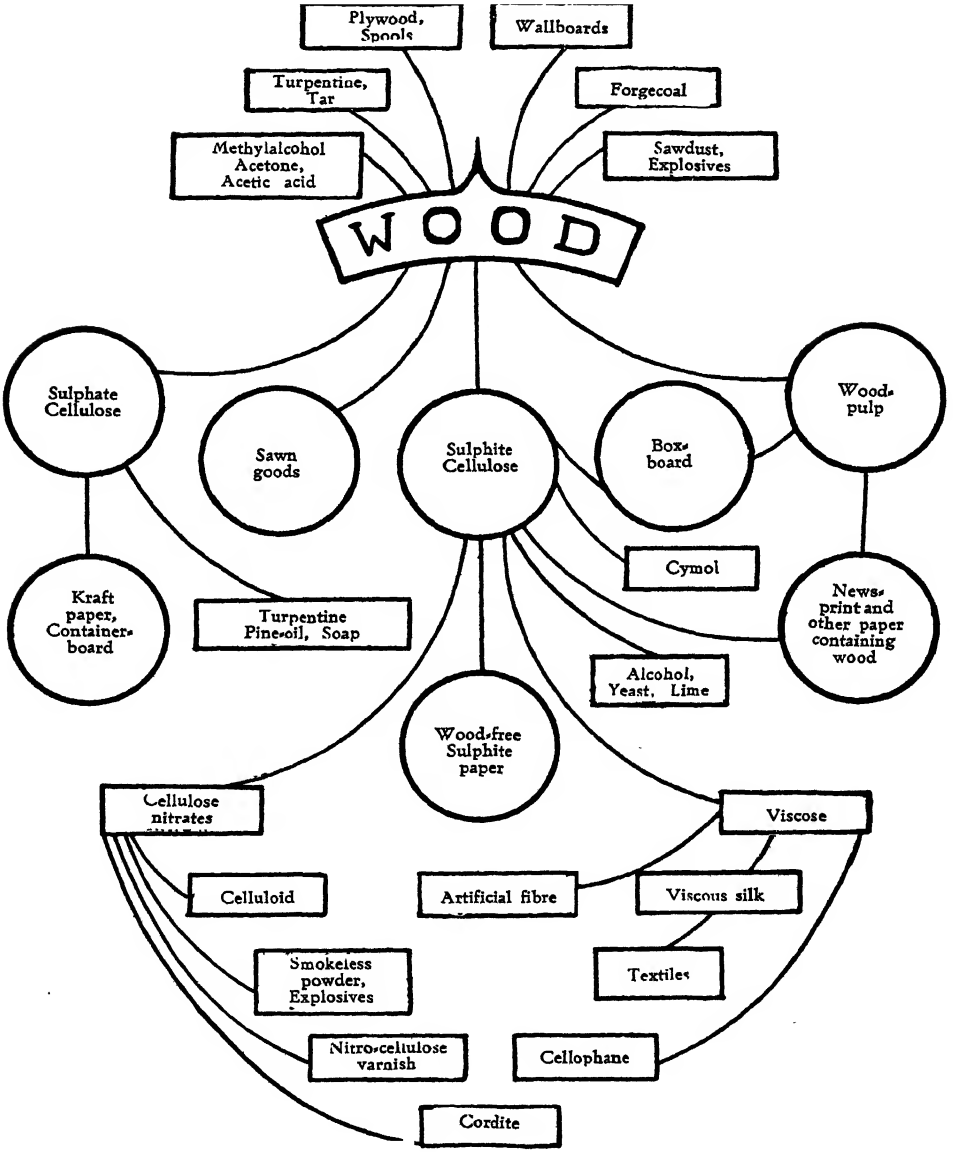
Degrees of integration beyond the stage of paper mills are relatively rare in the Northern Countries and are confined to plants manufacturing bags, envelopes, cartons, exercise books, corrugated board etc. These countries do not possess undertakings corresponding to the British Beaverbrook and Rothermere concerns, which have their own forests, mechanical pulp mills, cellulose and paper mills, and their own newspaper printing plant.

Apart from integration, which may be regarded as a trend in a vertical direction, development of the woodworking industries also occurs on a horizontal plane. The concentration of industries in horizontal combinations means that several separate concerns find it advantageous to come to an understanding in respect of joint administration, selling or buying, thereby reducing costs of administration and other expenses. As regards selling in particular joint action has proved singularly effective, and the woodworking industries therefore provide in this connection several examples of horizontal combinations — not only within one country, but also in co-operation between several countries — which will be discussed in more detail in Chapter XIV.

*The paper industries of the Northern Countries from a world point of view.*

The woodworking industries of the Northern Countries have won for themselves a prominent position on the international market. If we take as a typical example of recent developments the year 1933, we find from the diagram on page 73 (figures in the table section, *Table 17*), that the Northern Countries produced almost as much mechanical pulp as the rest of Europe combined, and almost a quarter of the world's total requirements. The cellulose industry of the Northern Countries is even more imposing and embraces more than one-third of the world's total production of cellulose. The production of paper in the Northern Countries amounts to about one-eleventh of the world's production.

*The Northern Countries' Woodworking Industries.*



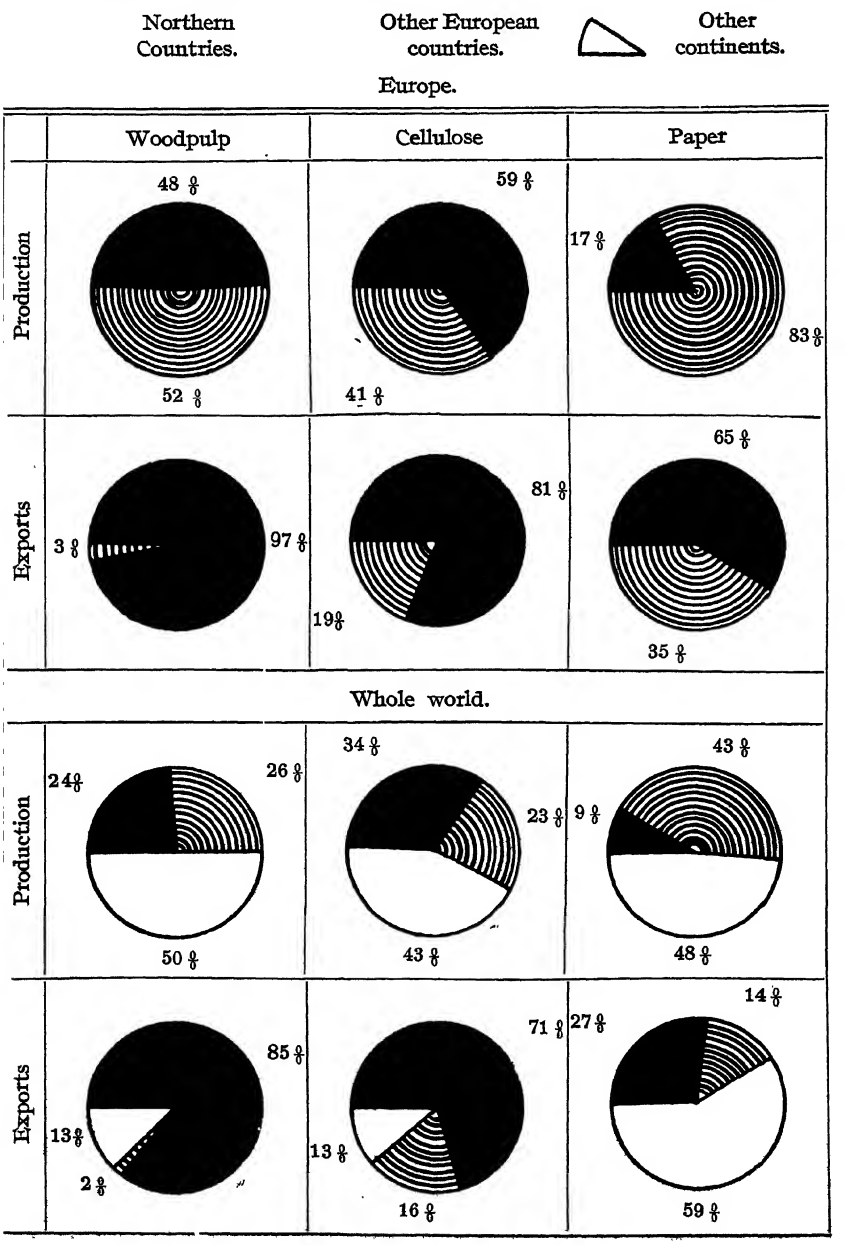
This proportion is considerably lower than that mentioned above owing to the fact that semi-manufactures are principally manufactured for export to paper-producing countries. This fact will also be seen very clearly from the percentage division of export figures for these articles (diagram on the opposite page). Thus woodpulp and cellulose exported from the Northern Countries amount to 85 % and 71 % respectively of the world's total exports of these products. The segment for paper exports, representing rather more than a quarter of the world's exports, indicates that only a small percentage of paper manufactured in the Northern Countries is produced to satisfy domestic needs. Disregarding sales from Canada to the U.S.A., the Northern Countries' exports of newsprint occupy the leading place on the international market from the point of view of quantity, these exports amounting to over 40 %. The Northern Countries occupy an even more dominating position as regards export quantities of other kinds of paper, or almost 60 % of the world's total exports, including even paper exports from Canada to the U.S.A. We therefore feel justified in stating that the Northern Countries control almost half of the world's free paper trade.

## CONCLUSION.

*Co-operation in the woodworking industries.*

An account of the woodworking industries would be incomplete without a reference to co-operation within these industries. Finland, Norway and Sweden more or less began their production of commodities from the woodworking industry from the same starting point and have worked under similar conditions and according to similar methods; on the whole they manufacture the same goods and operate on the same markets. It is therefore natural that there should exist a certain competition between them, similar to that between firms working in the same branch in the same country, but above all they have common interests and a common goal. Co-operation between the Northern Countries is thus perfectly natural, and under the exceptional commercial-political conditions of recent years, it has become even more

*The Northern Countries' Share in the Production and Exports of Woodpulp, Cellulose and Paper of Europe and the World in 1933.*



essential than formerly. A survey of the forms taken by this co-operation is given in the chapter on Economic Co-operation between the Northern Countries.

Co-operation within the woodworking industries constitutes a factor — possibly the most important — in the economic ties between the Northern Countries, which, in turn, is an indication of that unity and similarity of interests which generally links these nations together. This co-operation in the woodworking industries has made its appearance spontaneously on a basis of common endeavour and common aims. It is not purely occasional, but is to a great extent regular and continuous, and it concerns the central branches of economic life in the Northern Countries. Its purpose is to assist the development and strengthen the position of the Northern Countries in the world.

CHAPTER VI.

# MINING, METAL AND QUARRYING INDUSTRIES.

In a preceding chapter the most important of the mineral resources of the Northern Countries have been mentioned, and at the same time it has been stated that they have given rise to important industries. These industries will now be examined more in detail and the examination will be extended to mineral resources and mineral industries not hitherto mentioned. Or rather to some of them, for here also we must make a selection from the abundant material. It should perhaps be pointed out that the selection is not confined to industries wholly or principally manufacturing materials derived from home resources. Thus the engineering industry is included, which is of significance in all the Northern Countries (except Iceland), though some countries are to a greater or less degree dependent upon imported iron and steel.

*Iron-ores.*

The iron-ore resources of the Northern Countries may be said to have made their entry into economic life at two different stages. In Central Sweden iron mines were opened up as early as the Middle Ages, and as time went on they gave rise to an industry of great importance, not least as a source of export to foreign countries. Of more recent date is, on the other hand, the exploitation of the immense iron-ore resources of the most northerly parts of Sweden and Norway, for it began some forty years ago.

Strange as it may seem, the greatest iron-ore resources of the aforesaid countries were untouched until our own day, though

the explanation is very simple. Phosphoric iron-ores like those mined at Kiirunavaara and Gällivara in Lapland (and, we should add, at Grängesberg in Central Sweden) were unsuited to the technique of older times. Their opportunity only came when, during the latter half of the 19th century, the Bessemer and Martin steel-producing methods were developed.

When the opportunity came, it involved a remarkable expansion of the export trade of the respective countries rather than a widening of the basis of the domestic iron industries. The utilization of the vast quantities of iron-ore with the help of domestic charcoal resources was, of course, out of the question. Consequently this ore found its way to countries with an abundant coal supply, such as Germany and Great Britain.

Nor is there anything to indicate any change in the near future as regards the great mass of the iron-ore resources here referred to. Sweden's iron and steel industry will certainly continue to rely upon the high-quality iron-ores of the central parts of the country, while phosphoric iron-ore will continue to be exported. And likewise it seems probable that Norway, even in years to come, will place the bulk of her iron-ore output on foreign markets.

The magnitude of iron-ore mining in Sweden and Norway may be judged by the figures in the adjoined table, showing the iron-ore production of several European countries.

*Iron-ore Production of Some European Countries.*

| | 1 000 metric tons | |
|---|---|---|
| | 1929 | 1935 |
| France | 51 030 | 32 339 |
| Great Britain and Ireland | 13 427 | 11 075 |
| Sweden | 11 468 | 7 933 |
| Germany | 6 373 | 6 044 |
| Spain | 6 559 | 2 633 |
| Norway | 746 | 765 |

The figure for Sweden gives at the same time a fairly good idea of the magnitude of her iron-ore exports, for the Swedish

iron and steel industry requires less than 1 million tons of ore per year. Of the Norwegian iron-ore production the main part is exported.

It may be added in this connection that the Norwegian iron-ore must to a large extent be subjected to a concentration process, which of course takes place at the mines. The concentrate, which has a high iron content and a low sulphur and phosphorus content, is exported as slick or briquettes. The Swedish phosphoric iron-ore, containing no less than 60—70 per cent. of iron, goes to the furnaces of foreign countries in an unchanged condition.

*Other ores.*

Of other ores, pyrites should be mentioned in the first place, for they are found both in Norway, Finland and Sweden. As will be seen from the adjoined table, Norway's output of pyrites is very considerable.

*Production of Pyrites in Some Countries in 1934.*

| | 1 000 metric tons |
|---|---|
| Spain | 2 072 |
| Japan | 1 090 |
| Norway | 961 |
| Italy | 812 |
| Finland | 274 |
| Sweden | 101 |

As a matter of fact the pyrites are of greater importance than any other ore to the mining industry of Norway. The pyrites have a sulphur content of from 40 to 50 per cent. and copper up to 2.5 per cent. Some of the pyrites mined contain also zinc, and at many of the mines the copper and the zinc contents are extracted by the floatation process, by which a pure pyrites' concentrate is obtained, which is exported. A part of the output is used for the production of pure sulphur, whereof there is a notable export, but the greater part of the production is sent abroad, to Great Britain, Germany, Belgium, Sweden etc. The last named country's resources of pyrites do not suffice for its own needs, the cellulose industry consuming great quantities in the production of cooking liquor. Finland is, again, able to supply the corresponding need from

its own resources, relying upon a most important deposit of sulphide ore, from which a pyrite concentrate is obtained.

With reference to sulphide ores we should remember that they are more than a subsidiary of the cellulose industry. This is the case with the Finnish deposit at Outokumpu in Eastern Finland. This ore is rich in copper, sulphur and iron and contains also, though in small quantities, zinc, cobalt, silver and gold. Another combination is found in the sulphide ore of Boliden in the North of Sweden, where modern electrical ore-prospecting methods some ten years ago won their first great victory. The Boliden ore yields gold, silver, copper, arsenic, sulphur, a pyrite concentrate and in addition not entirely insignificant quantities of bismuth and selen.

It remains to be mentioned that Norway's considerable resources of copper ore, nickel ore and other ores are, to a large extent, mined for refining at home. The production of molybdenum ore is remarkable, being the greatest in Europe and only surpassed by that of the American mines. The ore is exported. Of the several important zinc ore deposits in Sweden one is mined for export, with Belgium as the principal purchaser.

*Iron and steel industry.*

Turning to those industries which extract the metals from the ores and work them up into products of various kinds, we begin with the iron and steel industry, following the iron a further stage on its long journey from the natural deposit to the finished goods.

The story of Sweden's iron industry is, as has already been stated, one of considerable antiquity and includes a period under which the Swedish iron works secured a leading position in the world market of former days. This favourable position was based not so much upon the resources of fine iron-ore and water-power as upon the abundant supply of charcoal, and it was only lost when in the course of the 18th century the English iron industry solved the problem of substituting coke for charcoal.

But if the Swedish iron and steel industry of to-day holds a modest place among the iron and steel-producing countries as far as mere output is concerned, it has still preserved its ancient reputation, and still concentrates on products of extraordinarily

high quality. The exports from the ironworks of Central Sweden in the form of charcoal pig iron, Swedish Lancashire iron, hot rolled and cold rolled charcoal and alloyed steel and manufactures thereof are well known in a great many countries, even if most of them purchase only very moderate quantities. It should be added that in more recent times the production of low-grade iron and steel for building purposes etc. has been taken up in Sweden, but not on a scale corresponding to the home demand. Consequently a great deal of heavy iron and steel products are imported, being purchased preferably from the big ironworks on the European continent.

The iron and steel industry of Norway has certain traits in common with that of Sweden. Pig iron is derived from native ore resources and is partly exported, partly manufactured at home. In recent times an electric iron-smelting furnace has been invented and is now used for the production of vanadium pig iron, which is exported. The manufacturing process is not so many-sided as in Sweden, but it meets some of the home demands, while others are supplied by means of imports. The export of manufactures of iron and steel has so far been inconsiderable. The important export of ferro-alloys will be treated later in connection with the great Norwegian electro-metallurgical industry.

*Imports and Exports of Iron and Steel and Manufactures thereof in 1935.*

| | £ mill. | |
|---|---|---|
| | Imports | Exports |
| Denmark ..... | 5.2 | 0.6 |
| Finland ..... | 2.7 | 0.3 |
| Norway ..... | 3.8 | 1.8 |
| Sweden ..... | 5.2 | 9.3 |

The figures comprise products of the electro-metallurgical and iron-manufacturing industries (excluding the engineering industry), treated in sections to follow below. The export figures for Norway are not complete, some ferro-alloys not being specified in the statistics and are therefore not included. As for ball-bearings see the note to the table on page 83.

Though Denmark has no iron-ore resources, it has been able to develop its own iron and steel industry, beginning the manufacturing process with imported pig iron or steel and ending with manifold products, especially such as may serve the needs of its great engineering industry. But Denmark is also, in accordance with the laws of specialisation, a buyer of large quantities of manufactured iron and steel, especially of English and German origin.

Finland's iron and steel industry has, until recent years, built upon imported iron, but now that the country's own iron resources are being utilized on a large scale, in the first place through the use of the iron content of the sulphide ores, the situation will in that respect undergo a marked change. The industry supplies, on a large and ever-growing scale, the demands of the home market, but much iron and steel is imported from other countries, mainly from Germany, Great Britain, Belgium, and Sweden.

*Electro-metallurgical industry.*

The abundant water-power resources of Norway have given rise to a large electro-metallurgical industry and a likewise large electro-chemical industry. These industries are, so to speak, twins, but the twins must here be separated, the latter being more fully described in another chapter. The electro-metallurgical industry constitutes a factor of importance in Norway's industrial production as well as in the country's foreign trade, where it is represented, be it noticed, on both sides of the balance sheet. Large quantities of ores and materials — zinc ore, bauxite, aluminium oxide, chromite, manganese ore and other species — are imported, and after treatment, a very large part of the respective metals, alloys and other products — aluminium, nickel, copper, zinc, ferromanganese, ferrochrome, ferrosilicium etc. — is exported to foreign countries. Some native ores are also used, first and foremost iron-ore. But the industry would not be what it is, were it not for the possibility of freighting, on favourable terms, foreign ore to the Norwegian harbours, where the large smelting works are situated as close to the sea as to the waterfalls. It is noticeable that Norway is the world's third largest producer of aluminium, in the manufacture of which cheap

electric power is a very important factor. It should also be mentioned that the largest ferro-chrome plant in Europe is situated there. The production of nickel, to a great extent based upon imported semi-products, is also important. The total value of the output of all electro-metallurgical products in the year 1935 exceeded £ 5.6 mill.

So also in Sweden water-power is used in the service of the electro-metallurgical industry, but there developments have not proceeded so far and not on quite the same lines. Alloys like ferro-silicium and ferro-chrome have predominated, both in the production and the export figures, and only the other year a large-scale production of aluminium, built upon imported aluminium oxide, was taken up. The total value of the output amounted in the year 1935 to about £ 1.5 mill.

Lastly the Finnish electro-metallurgical industry should be mentioned, for however recent its origin, it has, thanks to a rapid expansion, reached a considerable magnitude. The ferro-alloys predominate, accounting in 1935 for a production value of £ 0.8 mill. The ores treated are in the main drawn from foreign countries, and a great part of the output is exported.

*Other metallurgical industries.*

The production of gold, silver and copper at Boliden in Sweden deserves a special mention. The output of gold accounts for about £ 1.5 mill. per year, but the other products — silver, copper, sulphur etc. — are also of importance in the economic result.

A number of different products are also obtained from the ore at Outokumpu in Finland. Copper is smelted out of a copper flotation concentrate, while the pyrites concentrate is used by cellulose and sulphuric acid factories. The latter in turn yield purple ores to works which utilize the iron content for the production of pig iron.

Here is also to be mentioned the Norwegian production of sulphur from pyrites by the newly invented smelting process of Orkla, the first plant in which the utilization of pyrites for this purpose is carried on on an economic scale. By the same process a copper-stone is obtained. The slag containing the iron from the pyrites is exported.

*Other metal-manufacturing industries.*

As a special industry by the side of the iron and steel industry may be reckoned — in addition to the engineering industry, described below — the iron manufacturing industry producing such finished products as nails and screws, tools, building fittings, enamelled hollow-ware, radiators and hundreds of kindred utilities. Akin to this industry is the manufacturing of other metals and alloys, copper, brass, aluminium etc., and there it is often impossible to draw a definite line between one or the other of the respective industries. Many of them have, in the Northern Countries, as elsewhere, grown out of the old handicrafts, which has not prevented a number of enterprises from developing a large-scale production. In Sweden exports, comprising among others wickless oil stoves to a large amount, are considerably larger than imports, while in the other countries the contrary is the case.

*Engineering industry.*

Four out of the five Northern Countries, namely Denmark, Finland, Norway and Sweden, have developed an engineering industry of respectable dimensions, and even if they have to a certain degree specialised in different branches, the lines of development have on the whole been parallel. In every one of them a number of most important inventions have been made; every one of them has seen its sacrifices for technical education and research bear rich fruit; and every one has been able to mobilize the requisite staff of skilled engineering labour, relying upon a widespread natural genius for precise and enduring mechanical work.

The figures in the adjoined table demonstrate the magnitude of the imports and exports of the products of the engineering industry — using the term in a broad sense — of the four countries. Taken as a whole, the output must be regarded as impressive, even in comparison with that of the leading industrial nations. And as buyers and sellers of products of the engineering industry the Northern Countries have ample opportunity to remind other countries of their existence. Both the import and export figures are obviously high in relation to native production. They show that the Northern Countries have been able to develop in many branches of the engineering industry a large-scale production,

and also that they are willing to keep their markets open to the specialities of other countries producing on a scale perhaps still larger.

*Imports and Exports of Machinery, Electrical Apparatus, Vessels, Vehicles, Instruments, Clocks and Arms in 1935.*

| | £ mill. | |
|---|---|---|
| | Imports | Exports |
| Denmark ..... | 3.9 | 4.0 |
| Finland ..... | 3.5 | 0.3 |
| Norway ..... | 7.2 | 0.9 |
| Sweden ..... | 10.3 | 8.8 |

For several reasons the figures for the various countries are approximate and not strictly comparable. Ball and roller bearings are not included in the Swedish import and export figures; they appear in the table on page 79 (export value £ 1.6 mill.).

Of the specialities of the engineering industries of the Northern Countries only a few can here be mentioned. In many cases the needs of some branch of production characteristic of the respective country have been the foundation of a new industry, which does not prevent in the course of time the development of a more or less important export trade. The large production of agricultural machinery and dairy and slaughtering utensils in Denmark, Sweden and Finland affords one example, the production of hydro-electrical machinery and woodworking, pulp and paper machinery in Norway, Sweden and Finland another, the shipbuilding industries in Denmark, Finland, Sweden and Norway a third. When speaking of shipbuilding we must also remember the marine motor industry, represented in all the four countries; Diesel engines for ocean-going ships are a famous speciality. Danish cement machinery, Norwegian whaling implements and Swedish mining and match-making machinery may also be included in this first group. In other cases it is a question of machines and utensils serving the needs of a great many industries, as for example steamboilers, electro-motors, electric cables, ball-bearings, transmitters etc. In yet other cases we find the production of »durable consumption goods» such

as radio sets, refrigerators, telephones, dry batteries, electric vacuum cleaners, electric stoves and other electric domestic apparatus. There are also cases in which technical perfection in the field of engineering is an invisible export; the work of Danish engineering firms in foreign countries affords an example of this kind.

The production of vehicles deserves special mention. Every one of the four countries has a railway locomotive — in some cases steam, in some Diesel, in some electric — and wagon industry, adapted to the needs of its own railway system, and every one has a cycle industry, providing for the whole, or almost the whole, home demand — that of Finland, however, only with the help of a considerable import of cycle parts. As far as the production of motor cars is concerned, the situation is not quite so simple. In two countries, namely Denmark and Sweden, an automobile industry of considerable magnitude has been developed, in the shape of factories which assemble parts imported from the United States, Great Britain etc., or, if produced at home, drawn from separate and independent engineering firms. Yet these countries are purchasers, on a large scale, of finished motor cars, principally of American and English make, while Finland and Norway may be said to rely mainly on imports. The total value of Denmark's, Finland's, Norway's and Sweden's imports of motor cars and parts from countries outside their own circle amounted in 1935 to about £ 4 mill.

But if imports of motor cars account for a considerable part of the total imports of engineering products, it ought not to be forgotten that the Northern Countries expend still greater sums on the purchase of foreign machinery for various industries, e.g. for the textile and the iron and metal industries, further machinery for the printing industry, special apparatus for the electrotechnical industry and a great many other specialities. The engineering industries of Great Britain, the United States and Germany have reliable customers in the Northern Countries, and so also have other countries, too many to be enumerated here.

*Coal-mining.* As has been pointed out in a preceding chapter Norway has been able to develop coal-mining at Svalbard (Spitsbergen

Islands). Sweden has also made use of her coal resources, situated, as we know, in the most southerly province of the country. In both countries the coal mined only supplements the large imports of coal and coke, Norway drawing about 10 per cent. and Sweden about 5 per cent. of the total consumption from her own resources. Thus all the Northern Countries are purchasers, on a very large scale, of coal and coke, placing their orders, all the year round, with English, German and Polish coal-mines and coke works.

From time immemorial peat has been used as fuel in all the Northern Countries, and it still is. Yet it is only in Iceland that peat-cutting plays a considerable part in the fuel economy of the country.

*Quarrying.*

Granite is found in large quantities in Finland, Norway and Sweden and also in Denmark, on the island of Bornholm in the Baltic Sea. It has become the basis of a quarrying industry, with paving setts and hewn kerbs as the principal products. It is unnecessary to observe that only quarries near the sea need be taken into account, as the industry is in a high degree dependent upon favourable shipping facilities. The home market has, of course, absorbed a great deal of the granite products, but exports have also played an important part. Yet the possibility of export is not the same nowadays as it was some thirty or forty years ago, new road surfaces having come into severe competition with the old ones. Exports have not ceased, but the value of the total exports of granite products from the Northern Countries is much lower than it formerly was.

Large deposits of limestone are also found in the four countries and are used for several purposes, including the production of cement, of which more will be said below. Marble is quarried for building and other purposes in Sweden and, though to a less extent, in Finland, Norway and Greenland. Cryolite, the singular white mineral which is found in quantities worth quarrying in Greenland, and nowhere else on the earth, must also be mentioned in this connection. Being used in the production of aluminium by the electro-metallurgical process, cryolite is mined by a Danish enterprise and is exported to several countries.

*Clay industries.*

However important the brick industry may be, it hardly requires any comment in this connection, being a typical home industry, for which the raw material is found in sufficient quantity in the Northern Countries as well as in most others. Some specialities, e.g. firebricks, are imported; yet Sweden has a notable production and export of firebricks, based mainly upon the clay which is exploited together with the coal of the Scanian mines and is of importance to the economy of coal-mining.

Something may be added concerning the cement industry, which has developed, at least in Denmark, into an export industry of significance. The requisite raw materials, i.e. limestone and clay, occur together in many places in Denmark, Finland, Norway and Sweden, and it has not been difficult for the respective industries to respond to the rapidly growing home demand for their products. To compete in the international cement market is more difficult, and some of the four countries may be said to refrain from doing so, but the Danish cement industry has worked up a considerable export trade.

*China and glass industries.*

Lastly we must glance at the china and glass industries, two industries which dispose of most of their output directly to households and differ in that respect from the majority of the industries treated in this chapter. Both are fairly well represented in Denmark, Finland, Norway and Sweden, although the most important raw materials must be obtained from foreign countries.

The china industry is of much older date in Denmark and Sweden than in Finland, and yet the last named country is, unlike the others, practically self-supporting as far as china is concerned, and has, moreover, developed an export trade of considerable magnitude. The leading Finnish china factory is, as a matter of fact, larger and has a more varied output than any other in the Northern Countries. The other Northern Countries have to supplement their own china production by imported goods, amounting to at least one-third of their total consumption. Imports come principally from Germany, Great Britain and Czechoslovakia; yet Sweden takes also a great deal of the Finnish exports already referred to. At the same time both Denmark and Sweden have a certain export trade in china, and if the

quantity of the goods exported is modest, their quality has won much esteem.

The situation is much the same in the glass industry. Even in this field Finland has reached the stage of complete self-sufficiency, while the export figures are inconsiderable, as are also those of imports. Denmark, Norway and Sweden, on the other hand, import large quantities of glass, especially window and mirror glass. Belgian and German glass factories, producing on an extremely large scale, are the chief suppliers. A part of Sweden's imports is, however, counterbalanced by exports comprising among other things, etched ornamental glass of a high standard.

CHAPTER VII.

# OTHER INDUSTRIES.

## FOODSTUFF INDUSTRIES.

In the Northern Countries agriculture and the manufacturing industries are often so closely connected that it would be difficult to separate the spheres and functions of the one from the other. In the present case the production of butter, cheese and bacon, though effected in modern factories equipped with the most up-to-date machinery, has been described in the chapter on agriculture. The same is true of certain other branches of the food industry which have succeeded in building up a quite considerable export trade, e.g. tinned milk and cream and tinned meat. In the same way the fish-packing trade, of especial importance to Norway, has been described in dealing with the fisheries. There are, however, in the Northern Countries a number of important food industries which mainly or wholly dispose of their products in the home market.

Large modern flour mills supply the bulk of the demand for wheat and rye flour and rolled oats. While exports of these products are negligible, quite a considerable export of hard rye bread (crisp bread) has sprung up during the last few years, especially from Sweden.

The beet-sugar industry is of great economic importance to Denmark and Sweden and has a capacity sufficient to meet the demand of the home markets of those two countries. In Finland too beet-sugar factories have been established, but the Finnish sugar industry is still chiefly a refining industry.

Among other foodstuff industries of importance may be

mentioned the margarine industry, intimately connected with the important edible oil industry, and also the chocolate and sweetstuff industry, which now supplies most of the home demand.

Recognition of the importance of scientific research to industrial production has induced a large number of establishments in the Northern Countries to equip laboratories which pursue scientific research and thereby assist manufacturers to reach the highest possible degree of perfection. Thus the result of the research work done in Denmark in connection with fermentology is known to scientists all over the world, and has been of great importance to the food industry and especially to the brewing industry. The breweries, some of which are among the largest existing, use home-grown barley as a raw material, the hops being imported. All the Northern Countries are in a position to meet the demand of their respective home markets; in addition there is quite a considerable export of Danish beer, especially of Lager Beer, to the United Kingdom and also to overseas markets, where it is of the greatest importance that the keeping qualities of the beverage are beyond question.

Of the spirits produced by the distilleries of the Northern Countries aqua vitae is the best known; various other spirituous liquors are produced, and there are some exports. The distilleries, which are more or less under public control, also help to satisfy the home consumption of yeast and export a part of their output of this commodity.

There exists, finally, a tobacco industry, which has developed into large-scale production and is in a position to meet the demand of the home markets. In Sweden the sole right of manufacturing and importing raw tobacco is monopolised by the State, and the same is the case in Iceland, where, however, no tobacco industry has as yet been established.

## THE TEXTILE AND CLOTHING INDUSTRIES.

In the North, as in most other European countries, the textile handicrafts — spinning and weaving — were the first to develop into an industry. About the end of the eighteenth century the

erection of larger mills and the installation of machinery began. The impulse came mainly from England after its epoch-making inventions of spinning and weaving machinery. In some cases the Governments themselves took the initiative in erecting new textile factories; the new machines were imported from England, and competent instructors were called in to manage the factories and to train the workmen in the Northern Countries in the operation of the machines. However, it was not until the latter half of the nineteenth century that there was a real foundation for the establishment of a textile industry in the modern sense. Most of the Northern mills of the present day were founded during that period and were equipped with machinery which, in the cotton industry, was mainly imported from England and, in the woollen industry, from Germany. The industry, which has since then kept pace with technical developments abroad and is equipped with the most up-to-date machinery, is now, both from the point of view of the value of output and the number of hands employed, one of the most important of the industries of the North which mainly dispose of their output in the home market.

*The woollen industry.*

With the exception of Iceland, which country has a considerable export of wool, and Norway, where about two-thirds of the wool employed is produced at home, the woollen industry of the Northern Countries is mainly based on raw materials imported from the British Dominions and the Argentine and to a great extent bought in the United Kingdom. The production of woollen yarns does not meet the home demand, however, and considerable imports occur, mainly from the United Kingdom and Germany. The output of woollen fabrics amounts in Sweden, Norway and Finland to about 70 per cent. or more and in Denmark to about 50 per cent. of the home demand; in Iceland it is somewhat less. Imports consist mainly of suitings and dress materials, in which the United Kingdom and Germany are again the principal suppliers.

*The cotton industry.*

If the Northern Countries are taken as a whole the cotton mills occupy the first place among the various branches of the textile industry. Although not so old as the woollen or linen industries, which were able to use raw materials produced at home, the

cotton industry dates back to the end of the 18th century. It is, however, the efforts of the last 50 years that have made it possible for the cotton industry of the North to attain a position which is technically equal to that of the older industrial countries.

The cotton industry in the Northern Countries is not confined to weaving establishments, most of the yarn being spun from imported raw cotton, to a great extent in separate mills. The number of spindles installed exceeds 1 million, of which Sweden has 600,000, Finland 350,000, Denmark 100,000 and Norway 50,000, Iceland having no cotton industry of her own.

Although this number is not very impressive compared with that of the great exporting countries, yet it is — taken as a whole — sufficient to satisfy the main part of the demand of the weaving mills, imports mainly consisting of finer yarns and of sewing cotton, the bulk of which comes from the United Kingdom. It is estimated that Finland manufactures nearly all the yarn she requires, Sweden about 95 per cent., Denmark 80 per cent. and Norway about 35 per cent.

As regards woven cotton goods, the mills aim especially at supplying those fabrics for which there is a sufficiently large home market to make production profitable. Sweden, however, now produces more than four-fifths and Finland almost an equal share of the total home demand for cotton fabrics. As to Denmark, nearly 50 per cent. of the home demand is imported, while Norway takes 55—60 per cent. from abroad. The United Kingdom is the principal supplier, but imports also occur from Germany and a number of other countries, including Japan in recent years.

*The linen industry.*

With the exception of Finland, where nearly one-half of the flax used is home-grown, the linen industry, which is not nearly of the same importance as the woollen or the cotton industry, is mainly based on Baltic flax. Both technically and with regard to design the linen industry, which in Finland, Norway and Sweden also includes spinning, has reached a very high standard of perfection, and some exports take place from Finland and Sweden, although there is a considerable import surplus, especially from the United Kingdom, Belgium and Czechoslovakia.

*The jute industry.* The jute industry is also of comparatively small importance, Sweden alone being in a position to meet the main part of the home demand for both yarn and fabrics. The other Northern Countries, with the exception of Iceland, are, however, able to supply the bulk of the home demand for jute yarn. The United Kingdom is the principal supplier of jute fabrics.

*Artificial silk industry.* Among other branches of the textile industry there is the manufacture of artificial silk, for which several of the Northern Countries are especially well situated, since they possess sulphite pulp and most of the other necessary raw materials. Until recently Sweden was the only Northern country to take up this production, but a factory has now been established in Norway and one is under construction in Finland. Although Sweden, Denmark, Norway and Finland have a very considerable output of artificial silk fabrics, they import a large quantity of artificial silk yarn and piece goods, mainly from Germany, Switzerland and the United Kingdom.

*The hosiery industry.* The hosiery industry, which, like the woollen and linen industries derives from home industry, and is still to a small extent practised as such in some of the Northern Countries, has developed rapidly during the last few decades. The main part of the raw materials consists of worsted yarn, cotton yarn and artificial silk. The output covers the greater part of the home demand, in Denmark more than nine-tenths, in the other countries somewhat less, the imports consisting of thinner and lighter goods, especially stockings and fabric gloves. Germany, Czechoslovakia, the United Kingdom and Japan are the principal suppliers.

*The clothing industry.* The clothing industry of the Northern Countries has made rapid progress during recent years and is able to satisfy most of the demand of the home market. This is especially the case as regards men's wear, imports of which now mainly consist of raincoats, sports jackets and the like, the United Kingdom being the principal supplier of these articles. The production of ladies' clothing has also increased considerably; the greater part of the imports comes from Germany. In other branches of the clothing industry — underwear etc. — the process of rationalization has not been so thorough, but here again production now takes place

in factories, while not so many years ago it was partly carried on as a home industry.

In connection with the textile industry mention may be made of the rope and cordage works, which supply the bulk of the home consumption, including that of binder twine. There is also some export of cordage and, especially from Norway, of fishing nets and lines.

## THE CHEMICAL, ELECTRO-CHEMICAL AND OIL INDUSTRIES.

While the industries hitherto described in this chapter find an outlet for the greater part of their output on the home market, several of the many branches of which the chemical industry consists have in one or more of the Northern Countries developed into exporting industries of comparatively great importance. This applies especially to the oil industry, the manufacture of artificial fertilizers and the match industry.

*The vegetable oil industry.*

In connection with fisheries and whaling a description has already been given of the production of whale oil by the large Norwegian floating factories in arctic and especially in antarctic waters, and also of the manufacture of cod-liver and herring oil and other kinds of fish oil in Norway and Iceland. It is therefore another branch of the oil industry which will be dealt with here, namely the manufacture of vegetable oil.

As previously mentioned, the change over from exporting grain to exporting refined animal produce during the 'eighties and the 'nineties of last century brought about an increase in the root-crops of the Northern Countries, which again necessitated supplementary feeding stuffs rich in protein, such as oilcakes. As an outcome of the correlation between agriculture and industry a home industry was established, the raw materials for which, such as soya-beans, copra, ground nuts and palm kernels, were imported from overseas. The oil obtained in the process of manufacturing oilcakes was at first considered a by-product, but later on, when the demand for vegetable oil increased, the position was reversed and the oil is now by far the most valuable product of the oil mills. Through technical development and the application

of scientific methods such perfection has been reached in regard to quality, that it is now possible to give the edible oils practically any consistency, taste and melting point desired.

The production in Denmark of vegetable oil amounted in 1935 to 140,000 tons and that of oilcakes and meal to 326,000 tons; the corresponding figures for Sweden being in 1935 about 78,000 tons and 127,000 tons respectively; Norway has also a considerable production of vegetable oil and oilcakes.

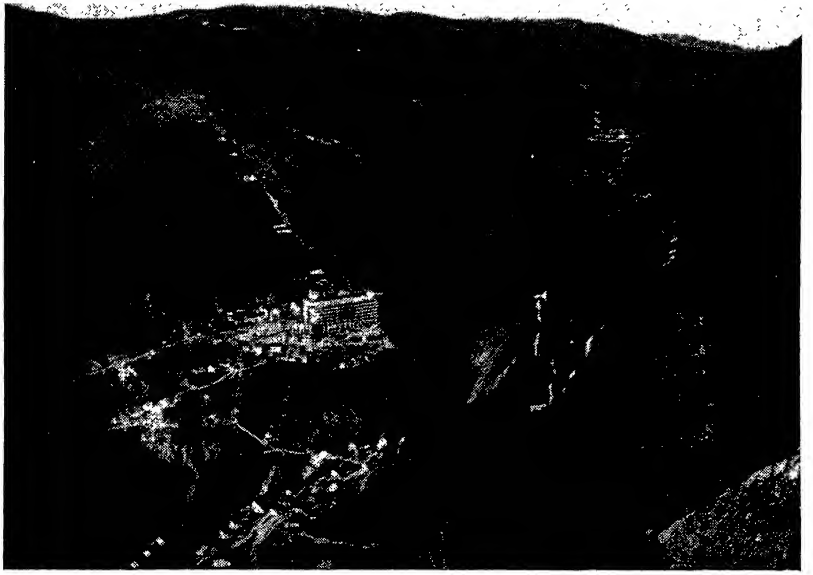
While the predominating part of the Norwegian and the Swedish production is absorbed by the home markets, about 70 per cent. of the output of the Danish oil mills is exported, thereby constituting one of the principal export articles of Danish industry. Oilcakes and meal go mainly to the neighbouring countries, but the oils are sent to all parts of the globe.

The main part of the refined oils is used by the margarine industry as a raw material, but oils are also used for direct consumption as salad oils or for cooking purposes. In the form of special preparations they are used in the production of chocolate, biscuits, toffee, and similar products.

Some of the products of the oil mills, such as oils which have not been submitted to the final refining processes, ordinary crude oils, the acid oil and fatty acids, are used for technical purposes, e.g. in the soap and candle industries, as well as in the paint and varnish industries. The Northern Countries are able to supply the greater part of the home demand for the products of these industries, and there is also some export both of soap and of paint and printing ink. It should, however, be mentioned that the colours used in the paint industry are for the greater part imported from abroad, mainly from Germany.

*Manufacture of artificial fertilizers.*

In the Northern Countries, with their great number of live-stock, farm yard manure is by far the most important plant-nutrient applied. Artificial fertilizers have, however, during the last fifty years been used to an ever-increasing extent. Of the various kinds of fertilizers, those containing phosphoric acid were the first to be used to any great extent and superphosphate factories have been established in all the countries except Iceland. The production of superphosphate in Denmark and Sweden



THE HYDRO-ELECTRIC WORKS OF VEMORK
NEAR RJUKAN, NORWAY.

amounted in 1935 to 343,000 and 247,000 tons respectively, while it is of comparatively less importance in Finland and Norway, where the production was 52,000 and 27,000 tons respectively. On the other hand Norway has a large production of nitrogen fertilizers, mainly nitrate of lime. Norway is, as shown in the table on page 13, the country in Europe which is most plentifully supplied with water-power, and has therefore also been called »the country of white coals». The great supply of hydraulic power affords exceptionally favourable conditions for the electro-metallurgical industry, referred to in connection with the metal industry in Chapter VI, as well as for the electro-chemical industry, which in the first instance comprises the nitrogen industry. It is Norway which is the pioneer country with regard to the utilization of the nitrogen of the air. On the basis of a Norwegian invention the first factory was put into operation in 1905. The industry has in subsequent years undergone great developments,

and now comprises electrical works which are among the largest in the world. In all about 500,000 h.p. are installed and the production capacity is at present 100,000 tons of pure nitrogen, while there are great possibilities of development.

As mentioned above, the chief product is nitrate of lime, which is used for fertilizing purposes; but there are also several other nitrogen products, among others nitrate of soda, nitrate of ammonia and various products thereof, also complete fertilizers etc. The greater part of the output is exported.

In addition to the nitrogen industry, mention should be made of the production of carbide, cyanamide and silicum-carbide, which also reaches large figures. Here again the greater part is exported.

Certain nitrogen fertilizers, namely sulphate of ammonia and calcium cyanide are also produced in Sweden, and the output is nearly sufficient to cover the home consumption, while the demand of the Swedish market for nitrate of lime is covered by imports from Germany.

There is a considerable import into the Northern Countries of Chile saltpetre and also of potash fertilizers, of which Germany, France and Spain are the chief suppliers.

*The match industry.*

While the invention of the friction match is generally credited to an English chemist, it was a Swede who invented the safety match. Shortly after the process of production of these matches was patented, in 1844, a match factory was established in Jönköping in Sweden, where the invention was perfected and first exploited on a large scale. The industry soon grew in importance, and Swedish matches rapidly began to be sold in all the markets of the world.

The Swedish match industry may be said to have been founded upon safety matches, but it has developed by adapting manufacture to supply matches of the highest quality and diverse types to suit the specific requirements of different markets and climates.

The success of the Jönköping factory and Swedish matches in general led to the formation of numerous companies in Sweden. Some of these had but a short span of life, while others set up very strong competition with the said factory. Eventually the

various companies were amalgamated into one concern which to-day, in addition to the factories in Sweden, has extensive match manufacturing interests in 40 different countries and in more than 100 factories situated in different parts of the world. The production of the Swedish factories amounted in 1936 to 25,500 tons, of which about 21,300 tons to a value of about £ 1 mill. were exported. The total production of the whole concern amounts to 140,000 tons.

Also Denmark, Finland and Norway have their own match industry, which is in a position to supply the demand of the respective home markets; besides some exports of Finnish and Norwegian matches take place.

The manufacture of explosives should also be mentioned here. This industry has — especially through the achievement of the brothers Nobel, the inventors of dynamite — reached a high level of perfection not only in Sweden, but also in some of the other Northern Countries.

*Other chemical industries.*

Of other products coming under this group of industries mention may be made of charcoal, which is of great importance in the production of high-grade Swedish iron, and also of wood-tar, oil of turpentine, resin and tanning extracts, which products are exported to some extent from Finland and Sweden. While the manufacture of these last mentioned articles is based on forest products, there are other chemicals which have at any rate part of their root in agriculture, and in the manufacture of which the Northern Countries occupy a prominent position. In this category come organo-therapeutic preparations made from animal glands etc., so widely applied nowadays in medical science, and of which there is a considerable export from Denmark, and also dairy preparations, such as rennet.

Until half a century ago cheese makers had to depend upon their own home-made rennet-juice extracted from dried or smoked calves' stomachs. This domestic product was anything but constant in strength, and cheese made by this means was generally of a doubtful quality, judged by modern ideas, and the high standard of uniform consistency and flavour which is characteristic of to-day's produce was then practically non-existent.

The invention by a Danish chemist of a rennet extract which was not contaminated by keeping, and was uniform in action therefore came as a great blessing to the cheese industry. Danish rennet preparations were speedily introduced in every cheese-making country of the world, and there is to-day a considerable export of these and other dairy preparations from Denmark.

Among the chemico-technical industries may also be included the rubber industry. In the Northern Countries the chief products of this industry are goloches and rubber boots, of which quite considerable quantities are exported, especially from Sweden and Finland. The production further comprises technical rubber goods and — as might be expected in countries, where the bicycle is such a popular means of conveyance — also bicycle tyres and inner tubes. Motorcar-tyres are also manufactured, but the greater part of the demand for this article is covered by imports.

In addition to the various branches of industry dealt with in this and the preceding chapters there is of course in the North as elsewhere a number of other industries which both as regards employment and the value of production are of no small importance. As an example may be mentioned the shoe industry, which in each of the Northern Countries is in a position to meet the greater part of the home demand. Most of these industries belong, however, decidedly to the category of home industries and may be omitted in this connection, where it is first and foremost the object to describe the economic life of the Northern Countries in relation to other countries. There is, nevertheless, a single group of industries and crafts, which, indigenous as it is, gives a good idea also of another side of the production of the North than the purely technical, and of which a few particulars will therefore be given. This is the trade which comes in the category of industrial arts and crafts.

## INDUSTRIAL ARTS AND CRAFTS.

Whenever the Northern Countries participate in exhibitions abroad, their stands exhibiting industrial arts and art handicraft are certain to attract the attention of the public. The applied

art of the North is simple in both substance and nature; the best Northern works are characterized by true efficiency of form, a certain critical attitude towards extreme modernism and a natural tendency to seek the solution of problems in accordance with the demands of to-day.

*Textiles.*

The modern hand-weaving of the Northern Countries derives from the old peasant weaving and is that branch of applied art which most clearly displays traditional traits. This is especially the case in Finland and Sweden, where this handicraft has for long been one of the most popular.

The excellent hand-knitted goods from the Faroe Islands and Iceland, some of which are still exported, and the manufacture of machine-woven carpets of unpretentious but attractive designs also deserve mention.

*Furniture and wood carving.*

Furniture is undoubtedly the phase of Northern industrial art and craft in which the greatest changes have taken place during the last few years. The number of cabinet-making factories which, in co-operation with artists, have modernised their output and concentrated on the production of furniture at once useful and harmonious and beautiful in form, is constantly growing.

At the same time the beautiful craft of wood carving, which in the Northern Countries reached the peak of its development in the 17th and the 18th century, has been revived and is once more being pursued with a pronounced sense of form and colour, especially in Norway.

*Silver ware, glass ware, porcelain.*

Success in the craft of applied art is no longer measured by large richly ornamented productions, but by refinement of sentiment. The keener appreciation of delicacy with regard to the form of practical articles has greatly influenced the production of Danish silver ware, which together with Swedish glass and Copenhagen porcelain were the products of Northern applied art which first found their way into other markets. High-class china, ceramics, glass and silver ware are, however, now being made in all the Northern Countries, and there is quite a considerable export of these articles to all parts of the world.

CHAPTER VIII.

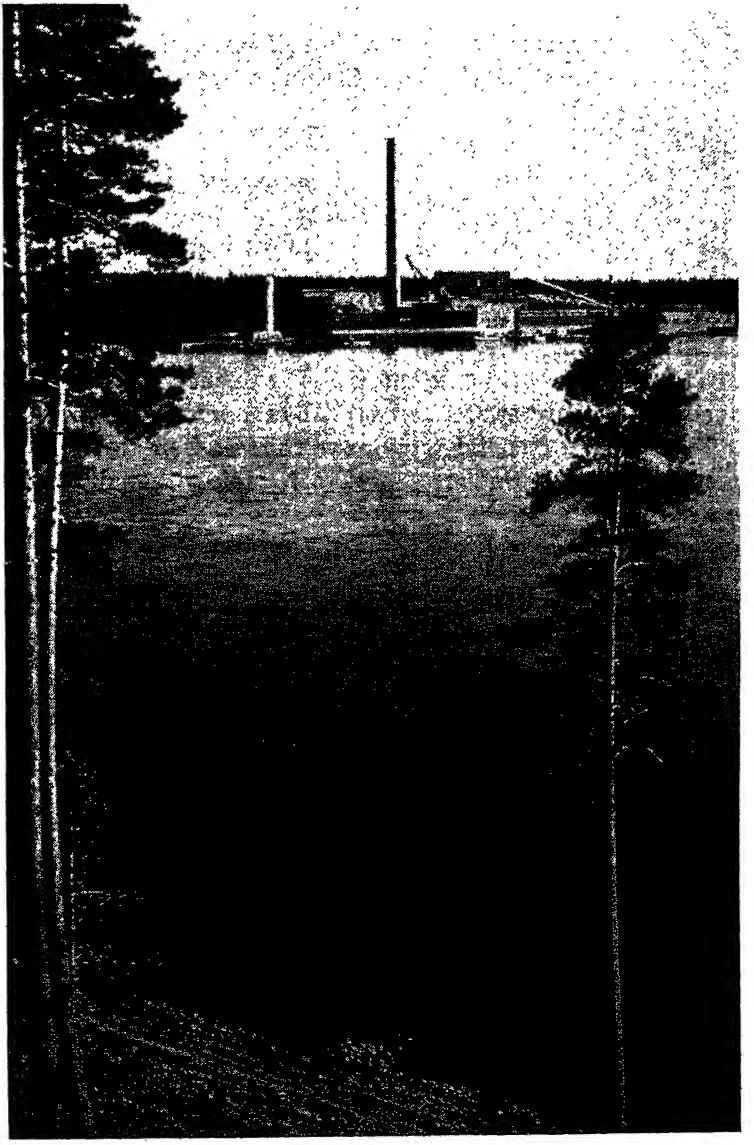
# THE NORTHERN COUNTRIES AS PRODUCERS.

*troduction.* The Northern Countries are large-scale producers of many commodities. In several fields they have been richly endowed by Nature, so that they are enabled to produce various commodities far in excess of their own requirements. A description of these has been given in the chapters on Basic Elements in the Economic Structure of the Northern Countries and on the main industries: Agriculture, Fisheries, Mining, Forestry, and so forth. In these chapters a summary has been given of the results attained with the aid of labour and capital in contributing to world supplies. The present chapter gives a general view of the volume and distribution of the export trade of the Northern Countries.

If the North has an abundance of certain products, it has a deficiency of many others; but what these countries have in abundance is used as a means of exchange for such products as they lack entirely or of which they possess too little.

It will therefore be understood that the Northern Countries are in very great measure dependent on trade with the outside world, and consequently they have a very extensive foreign trade. In proportion to population very few countries outstrip the Northern Countries in this respect.

The Northern Countries have traded with other markets from a remote period. Very little statistical material is available from earlier times, but there is ample evidence that many kinds of commodities were freighted to and from the North. Trade increased as time went on and gradually attained to considerable



Iffland photo

THE KAUKOPÄÄ SULPHATE PULP MILL
AT LAKE SAIMAA IN EASTERN FINLAND.

dimensions, but it was particularly during the general expansion of world commerce about the middle of last century that the external trade of the Northern Countries began to make real headway. The liberal commercial policy which was introduced at that time, together with technical developments, greatly stimulated the Northern exchange of commodities with other countries. According as the Northern Countries secured an increasing share of world shipping so did they also participate to a growing extent in world trade.

There have been periods of stagnation in this development as a result of cyclical fluctuations in world trade, but the general trend has always been an upward one. It was but natural that the Northern Countries should also be hit by the world crisis in 1929, and exports fell off considerably, as will be seen from the appended survey; but this trade recovered more rapidly than did world trade.

*'alue of the :port trade.*

*Value of the Export Trade of the Northern Countries.*

*Special Trade* [1])

| | Denmark £ mill. | Finland £ mill. | Iceland £ mill. | Norway [2]) £ mill. | Sweden £ mill. | Total £ mill. |
|---|---|---|---|---|---|---|
| 1929 ..... | 88.8 | 33.0 | 3.3 | 45.5 | 99.9 | 270.5 |
| 1930 ..... | 83.9 | 27.7 | 2.7 | 43.1 | 85.6 | 243.0 |
| 1931 ..... | 69.8 | 22.7 | 2.2 | 30.9 | 62.5 | 188.1 |
| 1932 ..... | 58.8 | 20.1 | 2.2 | 29.1 | 49.8 | 159.5 |
| 1933 ..... | 52.4 | 23.2 | 2.3 | 29.7 | 56.2 | 163.8 |
| 1934 ..... | 52.5 | 27.2 | 2.2 | 30.7 | 67.1 | 179.2 |
| 1935 ..... | 54.2 | 27.3 | 2.1 | 32.0 | 66.9 | 182.5 |
| 1936 ..... | 59.2 | 31.5 | 2.2 | 36.7 | 77.6 | 207.2 |

The value of the combined export trade of the Northern Countries was £ 270,500,000 in 1929, which fell to £ 159,500,000 in 1932; but in the following years it rose appreciably and stood at £ 207,200,000 in 1936. In point of value, exports had thus not yet reached the level of 1929, but were 23 % below. The value of world export trade, however, was in 1936 as much as 40 % short

[1]) Including exports to the other Northern Countries, of the value of about 13 % of the total export trade of the Northern Countries.

[2]) Including whale oil delivered direct from the whaling grounds, which is not included in the ordinary export returns.

of the 1929 figure. The figures for value do not however indicate the volume of this trade, seeing that the monetary value was so much lower in 1936 than in 1929, there having been a very marked fall in prices in this period. In volume the export trade of the Northern Countries has increased so materially that it was in some instances substantially higher in 1936 than in 1929, whereas world exports were still approximately 15 % lower.

*Position of the Northern Countries as exporting nations.*

The share of world export trade contributed by the Northern Countries and their position as exporting nations are shown in the following table:

*Value of the Export Trade of Various Countries in 1936.*

| | £ mill. | Percentage of total world export trade |
|---|---|---|
| Denmark | 59.2 | 1.46 |
| Finland | 31.5 | 0.78 |
| Iceland | 2.2 | 0.05 |
| Norway[1]) | 36.7 | 0.91 |
| Sweden | 77.6 | 1.92 |
| *Northern Countries* | 207.2 | 5.12 |
| U.S.S.R. | 54.1 | 1.34 |
| Germany | 385.4 | 9.53 |
| Switzerland | 52.4 | 1.30 |
| Netherlands | 95.2 | 2.35 |
| Belgium-Luxemburg | 134.1 | 3.32 |
| Great Britain and Northern Ireland | 440.7 | 10.91 |
| France | 196.1 | 4.85 |
| Czechoslovakia | 63.6 | 1.57 |
| Italy (1935) | 88.0 | 2.18 |
| Union of South Africa | 109.8 | 2.71 |
| Canada | 205.8 | 5.08 |
| U.S.A. | 483.1 | 11.95 |
| Brazil | 64.3 | 1.59 |
| Argentine | 109.8 | 2.71 |
| Japan | 152.5 | 3.77 |
| Commonwealth of Australia | 100.8 | 2.49 |
| New Zealand | 45.0 | 1.11 |
| Total World Export Trade (74 countries) | 4 047.0 | 100.00 |

[1]) Including whale oil; see Note 2, page 102.

With an export trade in 1936 totalling £ 207,000,000 the Northern Countries occupied the fourth place, being surpassed only by Great Britain (£ 441,000,000), Germany (£ 385,000,000), and the U.S.A. (£ 483,000,000). All the other countries had a smaller export trade. The share of the world's export trade held by the Northern Countries was 5.1 %, as compared with 11.9 % for the U.S.A., 10.9 % for Great Britain, and 9.5 % for Germany.

Despite their comparatively small population the Northern Countries thus occupy a prominent place among the world's suppliers of commodities.

The position of the Northern Countries as exporting nations is still more marked when exports are calculated per inhabitant:

*Value of Export Trade per Inhabitant in 1936.*

| | £ per inhabitant |
|---|---|
| Denmark | 16.0 |
| Finland | 8.3 |
| Iceland | 19.1 |
| Norway | 12.7 |
| Sweden | 12.4 |
| *Northern Countries* | 12.4 |
| U.S.S.R. | 0.3 |
| Germany | 5.8 |
| Switzerland | 12.6 |
| Netherlands | 11.2 |
| Belgium—Luxemburg | 16.2 |
| Great Britain and Northern Ireland | 9.4 |
| France | 4.7 |
| Czechoslovakia | 4.2 |
| Italy (1935) | 2.1 |
| Union of South Africa | 12.8 |
| Canada | 18.8 |
| U.S.A. | 3.8 |
| Brazil | 1.5 |
| Argentine | 8.9 |
| Japan | 2.2 |
| Commonwealth of Australia | 14.9 |
| New Zealand | 28.6 |

These figures show that Iceland has the greatest export trade in Europe, in proportion to the population, and that only Belgium had a larger export trade in 1936 than Denmark. Then follow Norway and Sweden at about the same level as Switzerland. Finland's export trade was somewhat lower, but it was nevertheless greater per inhabitant than that of Germany and France.

*What the Northern Countries export.*

The chapters on the various industries give an enumeration of the staple exports of the Northern Countries. They are the products of agriculture and forestry, fish, ore and minerals, and their products. The clearest idea of the basis of the export trade of the Northern Countries will be gained from the following table:

*Exports of the Northern Countries classified according to the Origin of the Goods in 1935.*

| | Denmark | Finland | Iceland | Norway | Sweden | Total |
|---|---|---|---|---|---|---|
| | | | £ 1 000 | | | |
| Products of agriculture | 40 986 | 2 387 | 288 | 2 008 | 5 768 | 51 437 |
| Products of fisheries (incl. whaling, sealing, etc.) | 1 704 | 84 | 1 844 | 9 162 [1]) | 400 | 13 194 |
| Timber and wood | 226 | 11 940 | — | 748 | 8 624 | 21 538 |
| Pulp and paper | 68 | 11 082 | — | 6 980 | 21 130 | 39 260 |
| Ores, minerals, and products thereof | 912 | 525 | — | 5 197 | 8 365 | 14 999 |
| Metals and manufactures thereof | 2 780 | 432 | — | 5 613 | 18 257 | 27 082 |
| Other industries | 7 494 | 831 | 25 | 2 285 | 4 336 | 14 971 |
| Total | 54 170 | 27 281 | 2 157 | 31 993 | 66 880 | 182 481 |

Taking the Northern Countries as a whole, it will be seen that the forests make the largest contribution to the export trade, products from this source representing £ 60,800,000 out of a total export value of £ 182,500,000, i.e., roughly one-third. Of this, pulp and paper account for the greater part, viz., £ 39,300,000 or 21.6 %, while the value of wood and timber exports was £ 21,500,000 or 11.9 %.

[1]) Including whale oil delivered direct from whaling grounds.

Second to forestry products we have farm produce such as bacon, butter and eggs, the value of these exports being £ 51,400,000 or approximately 28 % of the total export trade.

Minerals and mineral products, metals and manufactures thereof, including machinery, etc., stood at £ 42,000,000 or 23 %, while the fisheries (including whaling, sealing, etc.) contributed £ 13,200,000 or 7.8 %. The remainder consists mainly of other manufactures.

This is the result we obtain when the Northern Countries are viewed as a whole. But the separate countries make their special contributions to this export trade. Whereas the products of the fisheries completely dominate the export trade of Iceland (85 %), that of Denmark comprises agricultural products to the extent of three-fourths of her total exports. In addition to this huge trade in converted farm produce, Denmark does a by no means small export trade in manufactures. Of the total exports of Finland from 80 to 85 % is forest products and wood manufactures. Despite this fact the export trade of Finland is by no means of a one-sided character, for it includes manufactures so widely different as sawn timber, plywood, bobbins, furniture, mechanical pulp, sulphite cellulose, sulphate cellulose, cardboard, and many kinds of paper and manufactures thereof.

Exports from Norway and Sweden are more evenly distributed over a number of different branches of production.

In respect of Norway the products of the fisheries (including whaling) and those of the pulp and paper industries represent approximately the same share of the export trade, viz., 25—30 %. But ores, minerals, and products thereof — among which are the products of the electro-chemical and electro-metallurgical industry — also contribute largely to the export trade.

In Sweden a total of about 45 % stands to the account of the wood, pulp and paper industries; but ores, metals and manufactures thereof also figure very prominently. Sweden is the land of iron, and exports not only iron-ore, but iron goods, machinery and appliances from its highly developed engineering industry.

As will be understood, the commodity groups enumerated here comprise a wide variety of articles.

*Table 21* in the table section gives the principal commodities; but space does not permit the enumeration of many specialities. Various metal goods, machines, etc. are summed together.

The more important commodities are: bacon, butter, eggs, fish and fish products, whale oil, wood and timber, paper pulp, paper, electro-chemical products, iron-ore, iron, pyrites, metals, iron and metal work, machinery and appliances.

The fact may be established that the Northern Countries rank among the leading supplying countries in the world in respect of many of these commodities. Taking agricultural products, we find that Denmark occupied the fourth place as an exporter of live cattle. Under this head the Irish Free State tops the list, then come Canada, Uruguay, and Denmark. The other Northern Countries do not export live cattle to any appreciable extent. As regards bacon, butter and egg exports, however, the Northern Countries play a far greater part; in fact they stand first in the world, and the credit for this is due to Denmark. In 1935 the Northern Countries exported 212,000 tons of bacon, of which Denmark supplied 197,000 tons. Second in the list was Canada with 57,000, followed by the U.S.A. with 28,000 and the Netherlands with 26,000 tons. As an exporter of bacon Denmark thus occupies an exceptional position in the world. Danish and New Zealand butter came into the world market in 1935 in approximately equal quantities, New Zealand exporting 142,000 tons and Denmark 138,000; then followed Australia with 116,000 tons. A long distance behind came the Netherlands with 47,000 tons. The other Northern Countries supplied roughly 30,000 tons.

Danish egg exports are equally considerable. In the list of exporting countries Denmark heads the list at 9,769,000 great hundreds, then come the Netherlands with 8,240,000, followed by Poland and the Irish Free State, each with rather more than 3,000,000 great hundreds. The other Northern Countries combined supplied 1,687,000 great hundreds.

The Northern States are the greatest fish producers in Europe and have consequently a huge exportable surplus. This applies

primarily to Norway and Iceland. Also in respect of the exportation of fish the Northern Countries therefore hold the premier place in the world. Taking all fresh, frozen, salted, and dried fish together, we find that the Northern Countries exported in 1935 close upon 400,000 tons of the value of £ 7,500,000, of which Norway supplied about 224,000 tons and Iceland 102,000 tons. This is not far short of double the quantity supplied by Great Britain, who ranked as the second largest exporter at close upon 230,000 tons. The third in the list was Canada, with 130,000 tons, and then came the Netherlands with 122,000 tons. Exports from the other countries fell far short of this figure. We may also mention tinned fish products, of which Norway is a big exporter. In 1935 only Japan, the U.S.A. and Portugal were in front. As regards other fish products such as cod-liver oil, Norway and Iceland deliver the bulk of the world's supply, and those countries are also among the largest exporters of herring oil, and of herring and other fish meal.

The Northern States rank as the largest exporters of wood and timber in the world. In 1935 they exported 12.6 million cub. metres, of which 8.3 mill. was supplied by Finland and 4.1 mill. by Sweden. This represents roughly 24 % of the total exports from all countries. The second largest exporter, the Soviet Union, exported 11.9 mill. cub. metres, followed by Canada with 8.2 mill. cub. metres, and the U.S.A. with 4.4 mill. cub. metres. As regards products of the pulp industry the Northern Countries figure still more prominently. Finland, Norway, and Sweden are the leading world suppliers of mechanical and chemical pulp. In 1935 they contributed respectively 85 and 71 % of total world exports under this head. Canada comes next with more than 10 % of world exports. After Canada these countries are also the biggest paper exporters.

The rich ore deposits, especially in Sweden and Norway, yield a large quantity for export. In respect of iron-ore Sweden ranks as the greatest exporter after France; but the trade done by Sweden also in the exportation of iron goods, and machinery and appliances, plays an important part. In this department Sweden has, as mentioned above, a highly developed industry. The Northern

Countries occupy a prominent position also as exporters of electro-chemical products. With regard to exports of nitrate of lime Norway holds the first place in world trade, contributing 389,000 tons out of a total of 422,000 tons supplied by the leading countries exporting this product.

In 1935 Norway took second place among exporters of aluminium and fourth place in regard to zinc.

It will be seen that exports consist partly of foodstuffs, partly of raw materials and semi-manufactures, but also in large measure of finished products. Foodstuffs constitute a large part, particularly in the export trade of Denmark and Iceland; the other countries export more especially raw materials and semi-manufactures of various kinds, but they — and Sweden in particular — do a large export trade also in manufactured goods.

Formerly, the export trade was of a far more one-sided nature, consisting for the most part of raw products or products at an early stage of manufacture such as wood and timber, fish, etc. But there have been radical changes in this respect, so that manufactured goods represent an ever-increasing percentage of exports. Initially wood was exported in the form of timber; the next step was to cut up the timber and send it out as sawn-wood, and later to an increasing extent as planed wood. But more advanced stages followed. The timber was converted into mechanical and chemical pulp and then into paper, these now being the main products of the wood-manufacturing industry. The timber log, which was formerly sent out into the world as it left the lumberman's axe, or cut up into deals and boards, now wanders forth largely as paper of various kinds, such as newsprint, wrappings, and so on.

Many other raw products of the North have undergone a similar development. For instance, a substantial part of the fish is now exported as a tinned product, and fish oil is hardened into fat. Again, the ore is smelted and the iron is made into machinery and appliances, etc., and, for example, into the world-famous Swedish ball-bearings.

*Export routes.*

A study of the export trade of the Northern Countries, from a geographical point of view, reveals that the current of products

branches out all over the world. There does not exist any country to which the products of the Northern Nations do not find their way. The main current, however, flows to comparatively few markets. England and Germany have always been among the most important customers; but these countries played in some instances a larger part formerly. Fresh markets have been opened, and the oversea countries have become increasingly important buyers. Among these oversea customers the U.S.A. is the most valuable. A part of the goods formerly sold to the European countries went overseas, this trade being negotiated by middlemen in the great commercial centres. But this intermediate trade has gradually receded into the background, and sales are effected direct to an increasing extent.

The routes followed by the exports of the Northern Countries are best illustrated by the following table, in which exports are accounted to those countries to which the goods are sold. These figures do not therefore show all the countries in which the commodities are to be used, but as a rule the buying country coincides with the consuming country.

*Value of Exports from the Northern Countries to Different Countries in 1935.*

| Country | Denmark | Finland | Iceland | Norway | Sweden | Total |
|---|---|---|---|---|---|---|
| | | | £ mill. | | | |
| [illegible] | [illegible] | [illegible] | 1.9 | 22.9 | 50.5 | [illegible] |
| Northern Countries | 5.9 | 2.6 | 0.6 | 4.4 | 9.8 | 23.3 |
| Belgium—Luxemburg | 0.8 | 1.6 | 0.01 | 0.8 | 2.0 | 5.2 |
| France | 0.5 | 1.2 | 0.009 | 1.5 | 2.9 | 6.1 |
| Italy | 0.3 | 0.5 | 0.1 | 0.5 | 1.5 | 2.9 |
| Netherlands | 0.6 | 0.8 | 0.007 | 0.7 | 2.1 | 4.2 |
| Poland—Danzig | 0.3 | 0.04 | 0.01 | 0.3 | 0.8 | 1.5 |
| Portugal | 0.2 | 0.03 | 0.3 | 0.3 | 0.2 | 1.0 |
| U.S.S.R. | 0.03 | 0.3 | . | 0.3 | 0.5 | 1.1 |
| Spain | 0.3 | 0.2 | 0.3 | 0.8 | 1.5 | 3.1 |
| Great Britain and Northern Ireland | 32.6 | 12.8 | 0.3 | 8.3 | 16.6 | 70.6 |
| Switzerland | 0.6 | 0.1 | 0.003 | 0.3 | 0.4 | 1.4 |
| Czechoslovakia | 0.3 | 0.1 | — | 0.2 | 0.6 | 1.2 |
| Germany | 9.1 | 2.6 | 0.2 | 3.9 | 9.6 | 25.4 |

| Country | Denmark | Finland | Iceland | Norway | Sweden | Total |
|---|---|---|---|---|---|---|
| | | | £ mill. | | | |
| *America:* ..... | 1.0 | 2.9 | 0.2 | 4.2 | 10.7 | 19.0 |
| Argentine ..... | 0.1 | 0.3 | 0.001 | 0.3 | 0.9 | 1.6 |
| U.S.A..... | 0.4 | 2.5 | 0.2 | 3.0 | 8.0 | 14.1 |
| *Africa* ..... | 0.5 | 0.6 | — | 0.9 | 1.5 | 3.5 |
| *Asia:* ..... | 0.6 | 0.4 | — | 1.6 | 3.3 | 5.9 |
| British Indies..... | 0.2 | 0.03 | — | 0.3 | 0.5 | 1.0 |
| Japan ..... | 0.03 | 0.3 | — | 0.9 | 1.1 | 2.3 |
| *Australia and New Zealand:* ..... | 0.04 | 0.05 | . | 0.4 | 0.9 | 1.4 |
| Total | 54.2 | 27.3 | 2.1 | 30.0 [1] | 66.9 | 180.5 |

Space does not permit us to include all countries in this survey — for such a list would be a long one — and we shall therefore only give the figures for exports to the various continents and to a number of the more important markets. In the table section a more detailed list has been printed (*Table 22*).

Of the total exports from the Northern Countries in 1935 about 84 % went to European markets and 16 % to non-European countries. Of the latter America took the major part, 10.5 %, while 3.2 % went to Asia, 2.0 % to Africa, and 0.8 % to Australia.

It will be observed that inter-Northern trade is included in the table and represents a considerable figure, viz., 13 % of the total export trade. In many fields the Northern Countries supplement one another, but it is the trade with the rest of the world that plays the decisive rôle.

Great Britain, Germany, and the U.S.A. stand out clearly as the principal markets. Combined, these three countries absorbed in 1935 61.0 % of the total exports. And of these three markets Great Britain is by far the most important, taking 39.1 % of

[1]) Excluding whale oil delivered direct from the whaling grounds, as figures do not exist regarding the distribution of oil by countries. On this account the figure does not agree with the table on page 102.

exports. Germany ranked second with 14.1 %, and the U.S.A. is the third on the list with 7.8 %. None of the other countries come anywhere near these percentages. The next largest buyer is France with 3.4 %, and then follow Belgium, the Netherlands, Italy, and Spain. Among the oversea countries the U.S.A. dominates, as we have seen; then comes Japan.

The several markets are, however, by no means equally important to each of the Northern Countries. The latter have different commodities to offer, and consequently the channels of trade cannot be the same, although the principal markets are largely the same for them all. Leaving out of account inter-Northern trade we find that, for all except Iceland, the two most important markets are Great Britain and Germany, although these countries are not by any means equally important customers of all the Northern Countries. The U.S.A. is the third best market for Finland, Norway, and Sweden. Iceland stands apart, for the klipfish-importing countries of the Mediterranean occupy a position of great prominence in her export trade.

The export trade of Denmark is a most concentrated one, quite 96 % of her exports in 1935 going to European countries and 60 % of this to Great Britain. Finland's export trade is somewhat more widely distributed, but Great Britain takes not far short of half of these exports. Germany and the U.S.A. come second, each with close upon 10 %. Russia was formerly a very important market for Finnish products, but since the War this trade has fallen off to a negligible figure. This loss has been made up for by increased sales to the English and American markets in particular.

Iceland's most valuable customers are Portugal, Great Britain, and Spain, each taking about 15 %, but Germany too is an important market.

As a natural result of the exports from Norway and Sweden being of a more comprehensive nature than those from the other countries, the export trade done by those two countries is spread over a considerably wider area. The principal markets are Great Britain, Germany, and the U.S.A. In 1935 these markets combined absorbed 50 % of the exports of both countries. The

remainder is spread over a large number of markets both in Europe and overseas.

*The Northern Countries' share of the import trade of various countries.*

The export trade of the Northern States is a decisive factor in the economy of these countries. At the same time, the commodities offered on the world market by the Northern States are also of very great importance to many countries. This applies primarily to Great Britain and Germany, whose purchases from the Northern markets represent in all approximately 10 % of each of their total imports. The Northern Countries are the largest suppliers to Great Britain, next to the U.S.A., who contributed in 1935 11.6 % of the total imports. The North supplies just about as much to Great Britain as do Germany, the Netherlands and France combined.

In the case of Germany, the Northern Countries taken together sell substantially more goods to that country than does any other country. Germany took nearly twice as much from these countries as it did from Great Britain and the U.S.A., who supplied respectively 6.2 and 5.8 % of Germany's imports. Imports from the Soviet-Union, the Netherlands, and Italy were in 1935 about half of those from the North, viz., 5.2, 4.7, and 4.5 % respectively.

The U.S.A. took 3.6 % of her imports from the Northern markets, that is to say, more than from France, who supplied 2.8 %, and nearly as much as from Germany, who supplied 3.8 %. Also in respect of other countries the Northern Nations are very well placed in the list of suppliers.

In respect of a number of commodities the Northern States are vitally important as a source of supply for many countries. Great Britain, for instance, takes a large portion of her heavy requirements of foodstuffs and of a number of raw products and semi-manufactures from these countries: of butter imports 26 %, of eggs 38 %, and of bacon 54 %. Imports of fish figured still more prominently. Of the total imports of fresh, frozen, salted, and dried fish 65 % was supplied by the Northern Countries. And as regards mechanical and chemical pulp the North covered in 1935 nearly the whole of Great Britain's import requirements, namely 94 %. Then again, that market secured 42 % of its total

paper imports from the Northern Countries, and 24 % of its ore imports.

Germany provides herself with foodstuffs and various raw products and semi-manufactures, etc. from Northern sources. Of her butter imports in 1935 these countries contributed 56 %, of eggs 29 %, and of bacon 30 %. Of Germany's very large fish imports half was from Northern sources, as was also 60 % of the imports of herring and other fish meal. In the case of German imports of certain fats the Northern States play a still more prominent part, for in 1935 these countries contributed more than 90 % of imports of cod-liver oil, whale oil, and hardened fats. It may further be mentioned that 86 % of German imports of mechanical and chemical pulp, and rather more than 40 % of ore imports, emanated from the North.

The U.S.A. is a comparatively new market, but the Northern Countries are now important suppliers of several commodities. For example, 62 % of imports of mechanical and chemical pulp were contributed by these countries in 1935.

Further, we may mention France, 80 % of whose imports of mechanical and chemical pulp was bought in Northern markets; Italy took 49 % and Japan 46 %. Of Belgian imports of newsprint 82 % was of Northern origin; Argentine took 51 % (newsprint), and the Union of South Africa took 30 % (printing paper).

These examples will suffice to give some impression of the part played by the North in supplying the commodity requirements of many countries. At the same time, however, we may record the fact that the Northern Countries are big buyers of many goods. These countries export so that they may buy, and the large export trade is consequently the pre-condition for an extensive import trade from every country in the world. This will be further elucidated in the following chapter.

## CHAPTER IX.

## THE NORTHERN COUNTRIES AS CONSUMERS.

*Introduction.*

The account which has been given in the foregoing chapters of the position of the Northern Countries as producers also provides a very vivid impression of how these countries have become together a factor, and a very important factor, in the world's economy by virtue of their position among the largest suppliers of numbers of products, the most outstanding of which are timber, cellulose and paper, refined animal foodstuffs, fish products, and ore.

That these countries have been able to work up so large a surplus production is of course due to a great extent to the fact that the natural conditions have been favourable to concentration on relatively few products. As far as Denmark is concerned, four-fifths of the exports consist of agricultural produce and a similar share of those from Finland are forest products, including sulphite pulp, paper etc., and from Iceland fishery-products. And even if the industrial life of Norway and Sweden is more universal in character, timber products and the yield from fisheries and whaling together form more than half of the value of Norway's exports, whereas almost half of Sweden's exports consists of forest products of every kind.

There has already been occasion to remark that the maintenance of such great productive activities is largely dependent on supplies of raw and subsidiary materials from outside. This is perhaps particularly true of agricultural production, which depends to so great an extent on imported feeding stuffs and

artificial fertilizers; nevertheless the fisheries also require foreign products, first and foremost fuel oil for the motors of the fishing vessels, and further salt for treating the fish and sheet-metal for tinning it. The wood-manufacturing industry is least dependent on foreign subsidiaries, although chemicals must be mentioned in addition to the foreign fuels employed.

But besides foreign raw and subsidiary materials necessary to maintain exports, it goes without saying that in countries where the economic structure is so one-sided in character as in the North, there must be a great demand for commodities which are not produced at home at all, or in only limited quantities. And as the national income is very evenly distributed, so that the purchasing power is not concentrated in a small fraction of the population, and since the population has a relatively high standard of living, it is only to be expected that the Northern Countries must also occupy a prominent position among the nations as consumers.

Very few people actually realise how much this is so, for there is a general inclination to appraise the importance of a market according to the size of the population. And though the Northern Countries together have a population of over 16 millions, they are exceeded by many other countries in population. The inhabitants of the North number only 0.8 per cent. of the world's total population, and in Europe Germany, Great Britain, France and Italy, not to speak of the U.S.S.R., have much higher totals; this also applies to Poland, whose population is almost twice as large as that of the North, and to Spain and Roumania. But if the Northern Countries measured by the standard of population occupy only the ninth place in Europe, with 3.2 per cent. of that continent's total population, the picture is entirely changed when a comparison is made between their imports and those of other countries.

Imports into the Northern Countries, which in 1929 had reached about £ 290,000,000, fell off considerably after the world crisis set in, and in 1933 the figure was down to about £ 165,000,000. However, as the following table shows, the total has been on the increase since then and it is now over £ 223,000,000.

*Value of Imports into the Northern Countries.*[1])

*Special Trade.*

| Year | Denmark | Finland | Iceland | Norway | Sweden | Total |
|---|---|---|---|---|---|---|
| | | | £ mill. | | | |
| 1934 ..... | 58.3 | 21.0 | 2.3 | 36.6 | 67.3 | 185.5 |
| 1935 ..... | 57.4 | 23.5 | 1.9 | 41.1 | 76.1 | 200.0 |
| 1936 ..... | 64.1 | 28.1 | 1.9 | 46.1 | 83.5 | 223.7 |

The table below illustrates the position of the Northern Countries as importing nations in relation to those European countries which have a larger population; it provides an excellent idea of the importance of the North as a market for foreign goods. Inter-Northern trade is included in the figures, which are for the year 1936.

*Position of Northern Countries as importing nations.*

| Country | Population Mill. | Total imports £ mill. | Imports per capita in £ | Imports as percentage of world's total import value |
|---|---|---|---|---|
| Great Britain .... | 46.9 | 792.7 | 16.9 | 18.4 |
| Germany ..... | 67.1 | 342.4 | 5.1 | 7.9 |
| France ..... | 41.9 | 306.9 | 7.3 | 7.1 |
| *Northern Countries* | 16.7 | 223.7 | 13.4 | 5.2 |
| Italy ..... | 42.4 | 130.9 | 3.1 | 3.0 |
| Spain ..... | 24.6 | 58.2 | 2.4 | 1.3 |
| U.S.S.R. ..... | 165.7 | 53.9 | 0.3 | 1.2 |
| Poland—Danzig .. | 34.2 | 38.4 | 1.1 | 0.9 |
| Roumania ..... | 19.0 | 18.4 | 1.0 | 0.4 |

As none of the European countries with a smaller population than that of the North have an import value anything like that of the Northern Countries, it appears that these latter countries taken together occupy the fourth place as a selling market among European countries, being exceeded only by Great Britain, Germany and France.

A comparison with extra-European countries, as that given below, shows that only the U.S.A. has larger imports.

[1]) Including the inter-Northern trade, which in 1936 had a c.i.f. value of about 12 per cent. of the total imports of these countries.

| Country | Population Mill. | Total imports £ mill. | Imports per capita in £ | Imports in percentage of world's total import value |
|---|---|---|---|---|
| U.S.A. ..... | 127.5 | 486.9 | 3.8 | 11.3 |
| Japan ..... | 99.4 | 157.6 | 1.6 | 3.6 |
| Canada ..... | 10.8 | 128.2 | 11.9 | 3.0 |
| British Indies .... | 352.8 | 92.2 | 0.3 | 2.1 |
| Australia ..... | 6.7 | 86.1 | 12.9 | 2.0 |
| Argentine ..... | 12.2 | 68.6 | 5.6 | 1.6 |
| New Zealand .... | 1.6 | 35.1 | 21.9 | 0.8 |

And as a matter of fact the Northern Countries' share — about 5.2 per cent. — of the world's total imports is six times greater than the import total corresponding to their share of population. Of the total import value of European countries the Northern Countries' share was 8.4 per cent., i.e. about twice as much as might have been expected from the population.

As the table on page 117 shows, the imports to the Northern Countries in 1936 amounted to about £ 13 per inhabitant. This is not so much as the figure for the United Kingdom, but almost twice the average import value per inhabitant of Germany and France.

On looking into the per capita imports of the various Northern countries it will be found that in 1936 Denmark had higher imports per inhabitant than any other country in Europe, viz. £ 17.3. Iceland, Norway and Sweden also figure among countries having the highest imports per capita, and in fact with their £ 16.2, £ 15.9 and £ 13.4 respectively are exceeded only by the United Kingdom and Belgium and, as far as Sweden is concerned, by the Netherlands. For Finland the figure, £ 7.4, is somewhat lower, but nevertheless greater than e. g. that of France and Germany.

Whereas owing to the economic structure of the Northern Countries the greater part of their export trade consists of a relatively small number of commodities, the position is entirely different as far as imports are concerned, for they are spread over an exceedingly large and varied number of commodities.

Before dealing with some of the most important of these, however, it may be of interest to examine the percentage dis-

tribution of imports over a few large groups, as shown in the following table based on the figures for 1934.[1])

*Composition of imports.*

| | Live animals | Foodstuffs & beverages | Raw and subsidiary materials | Manufactures | Total |
|---|---|---|---|---|---|
| Denmark .... | 0.2 | 14.2 | 40.9 | 44.7 | 100.0 |
| Finland ..... | — | 18.1 | 35.5 | 46.4 | 100.0 |
| Iceland ..... | — | 17.4 | 21.7 | 60.9 | 100.0 |
| Norway ..... | — | 18.9 | 30.3 | 50.8 | 100.0 |
| Sweden ..... | 0.1 | 14.7 | 37.9 | 47.3 | 100.0 |
| Total | 0.1 | 15.8 | 36.9 | 47.2 | 100.0 |

If this composition of imports is compared with the corresponding composition of the imports of those European countries whose imports exceed those of the Northern Countries, viz. the United Kingdom, Germany and France, it will be seen that a much greater share of Northern imports consists of manufactures than is the case with the three countries mentioned. This is scarcely surprising, having regard to the fact that those three are great industrial nations; but if we look at the absolute figures it is nevertheless remarkable that the Northern imports of manufactures (about £ 88,000,000 in 1934) are far beyond those to Germany (about £ 61,000,000) and France (about £ 58,000,000), and amount to about three-fourths of the United Kingdom's imports of these goods (about £ 112,000,000). Therefore, at a time when the various countries for reasons of employment are greatly interested in exporting their products in the most advanced stage of manufacture possible, the Northern market with its great purchasing power is attracting the increasing attention of the large industrial countries.

Having regard to the fact that the North can not only feed itself as far as animal foodstuffs are concerned, but — mainly as a consequence of Denmark's exceptional position in this respect — is also counted among the largest exporters of these products, it is worth noting that so large a proportion of its imports are made up of foodstuffs, beverages etc. It is true that part of these imports consist of grain for fodder, but, as the international statistics also

[1]) Bulletin du Bureau international de Statistique commerciale 1936.

show, the fact is that the Northern Countries have a very large consumption per inhabitant of commodities such as sugar, coffee and tobacco.

Assuming that imports in 1936 had the same composition as in 1934, this would mean that the Northern Countries imported manufactured goods to a value of £ 106,000,000, raw materials of £ 83,000,000 and foodstuffs of £ 35,000,000. The explanation of this composition, as already stated, may be found among other things in the fairly even distribution of income and in the stability of the economy of the Northern Countries in spite of the years of crisis.

Proportionately the consumption of foreign manufactures is greatest in Iceland, which on the other hand has relatively small imports of raw materials, owing to the subordinate part played by industry in Iceland's economic life. Otherwise, if the main groups alone are considered, the composition is fairly uniform.

*The principal imported commodities:*

From the account to be given in the following pages of some of the principal commodities purchased by the Northern Countries from the rest of the world, it will be seen, however, that, as might have been expected, the outstanding feature of each country's imports is determined by the differences already described in their economic structure. A more detailed survey of quantities and values of each country's imports in 1935 is given in *Table 23*.

Cereals.

In the group Foodstuffs and Beverages, *cereals* are the largest item. In 1935 their import value was about £ 8,000,000, or about one-fourth of the total imports under this group. Some of the grain, however, is used for fodder. The quantity of imported cereals forms only a fraction of the total consumption and has been declining in recent years. The causes of this decline are various. For example, the production of bread-grain in the Northern Countries has increased and at the same time the demand for fodder-grain has declined as a result of a reduction in bacon production, and consequently of the stock of pigs, necessitated by foreign import restrictions.

Nevertheless, more than 1.5 million tons of cereals were imported by the Northern Countries in 1935, half of this quantity going to Denmark and one-third to Norway. The following

figures show the imports of the various cereals distributed over the five countries. This distribution may vary a good deal from year to year, as for fodder-grain the question of the kind to use is to a great extent determined by prices.

*Imports of Cereals.*

| | Denmark | Finland | Iceland | Norway | Sweden | Total |
|---|---|---|---|---|---|---|
| | | | 1 000 tons | | | |
| Wheat ..... | 361 | 59 | — | 183 | 43 | 646 |
| Rye ..... | 187 | 27 | — | 141 | 1 | 356 |
| Maize..... | 213 | 53 | 2 | 122 | 43 | 433 |
| Other cereals.. | 58 | 9 | 1 | 21 | 14 | 103 |
| | 817 | 148 | 3 | 469 | 101 | 1 538 |

Apart from Iceland, which imports most of its bread-grain in the form of flour, the Northern Countries do much of their own milling; nevertheless there is still a considerable quantity of flour and meal imported, especially wheat flour, of which the 1935 imports totalled about 96,000 tons. About half, 43,000 tons, went to Norway, 32,000 and 16,000 tons to Finland and Denmark respectively, whereas Iceland imported 5,000 tons. Sweden's imports of wheat flour were very small.

The greater part of the wheat imported consists normally of Manitoba and La Plata wheat. Poland is the principal supplier of rye, whilst maize is mainly imported from the Argentine. Canada, the United Kingdom and the U.S.A. supply most of the flour.

Groceries.

In the foodstuff group the imports of *groceries* are almost as important in value as cereals. *Coffee* especially is a large item, the average consumption per head of the population in the Northern Countries being no less than 15 lb. per annum. This is considerably more than that of any other coffee-importing country in the world and, with the exception of the U.S.A., France and Germany, the Northern Countries constitute the most important market for this product, taking about 7 per cent. of the world's total exports. In 1935 the imports amounted to 112,000 tons, at a value of £ 5,200,000.

*Imports of Coffee.*

| Importing country | Quantity Tons | Value £ 1 000 |
|---|---|---|
| Denmark ..... | 25 200 | 1 125 |
| Finland ..... | 17 300 | 754 |
| Iceland ..... | 400 | 23 |
| Norway ..... | 20 100 | 920 |
| Sweden ..... | 48 500 | 2 402 |
| Total | 111 500 | 5 224 |

Of this total 61,400 tons, or about 50 per cent., came from Brazil, but the other coffee-producing countries in South and Central America as well as the Dutch East Indies have also found an excellent market for their coffee in the North.

*Tea* does not play nearly so important a rôle as coffee in the households of the North. The total imports in 1935 amounted to 1.4 million kilos, the main part of which was purchased in Great Britain.

A more important item is *raw cocoa*, of which the Northern Countries in 1935 imported 13,500 tons, to a value of £ 349,000. The greater part of this commodity was also bought in the United Kingdom, although a fair quantity is imported direct from the countries of production, of which Brazil, West Africa and Equador are the most important.

The imports of *sugar* to the Northern Countries in 1935 amounted to 237,000 tons, valued at £ 1,400,000. Iceland and Norway are wholly dependent, and Finland to a considerable extent, on foreign sugar, whereas Sweden and Denmark are normally self-supporting. A considerable part of the imported quantity consists of sugar refined in the United Kingdom, but some imports also take place from other countries, especially from Poland and Czechoslovakia.

Fruit. The last of the groups of foodstuffs of which special mention should be made is *fresh* and *dried fruit*. The recognition of the dietetic value of fruit has during the last decade greatly increased demand in the Northern Countries. Not only has the production and marketing of home-grown fruit, especially apples, made rapid progress, but imports have shown a marked increase too.

The following table shows the quantity and value of imports into the Northern Countries in 1935 of some of the more important kinds of fresh and dried fruit:

*Imports of Fruit.*

| | Quantity Tons | Value £ 1 000 |
|---|---|---|
| *Fruit, fresh* | | |
| Oranges and lemons ..... | 75 800 | 1 412 |
| Apples ..... | 18 700 | 462 |
| Bananas ..... | 19 500 | 490 |
| *Fruit, dried* | | |
| Prunes ..... | 12 400 | 308 |
| Raisins and currants .... | 9 200 | 258 |
| Apricots ..... | 1 700 | 113 |
| Total | 137 300 | 3 043 |

Spain is the largest supplier of oranges and lemons, but considerable quantities are imported from the U.S.A., Italy and Palestine; several other countries, including Brazil and South Africa, have in recent years also found a good market in the North for their fruit.

Next to oranges the most important item in the fruit imports of the Northern Countries is bananas. The bulk of the quantity consists of Jamaica bananas, to a great extent bought in Great Britain, but this fruit is also imported from other countries such as Colombia, Central America, West Africa and the Canaries.

Apples almost equal bananas as an imported commodity. The U.S.A. supplies nearly two-thirds of the total quantity, the remainder consisting mostly of apples from Australia and South Africa.

The demand for dried fruit is almost entirely satisfied by imports. Here again the bulk of the supplies comes from the U.S.A., though some also come from Spain, Greece, Turkey and other countries.

Wines and spirits.

*Wines* and *spirits* are the only kinds of beverages imported to any extent into the Northern Countries. The import value for 1935 amounted to more than £ 1,900,000, of which wine accounted for

about £ 1,100,000. France was the largest supplier of table wines, but in recent years a number of other countries have found a good market for this product in the North. With regard to both quantity and, especially, value the imports of heavy wines, however, are considerably larger than those of table wines, most of the supplies coming from Portugal and Spain.

The total value of the spirits imported in 1935 was £ 800,000, nearly half of which was brandy from France, while whisky from the United Kingdom accounted for one quarter.

In the introduction to this chapter it was pointed out that the economy of the Northern Countries is based to a great extent upon imported raw materials; indeed, the second large main group, *materials, raw* and *subsidiary*, in 1934 formed nearly 37 per cent. of the total imports of the North. The following figures of the imports in 1935 of some of the most important items in this group provide a good idea of the significance of the Northern Countries as a market for such commodities:

*Imports of Raw and Subsidiary Materials.*

| | Quantity 1 000 tons | Value £ 1 000 |
|---|---|---|
| Coal, coke etc. | 16 500 | 15 844 |
| Fuel oils, incl. petroleum | 1 914 | 6 765 |
| Iron and steel and other metals, crude | . | 5 730 |
| Oil seeds and kernels | 689 | 5 547 |
| Oilcake | 908 | 5 059 |
| Cotton | 51 | 3 175 |
| Wool | 14 | 1 936 |
| Hides and skins, raw | 42 | 2 249 |

Coal and coke.

*Coal, coke etc.* form the largest item, with an import value of about £ 15,800,000, of which £ 10,600,000, or about two-thirds, were for coal alone. France alone had higher coal imports in 1935 than the Northern Countries, which bought 12.4 million tons, or 11.1 per cent. of the world's total coal exports.

The table below shows how the 1935 imports of coal and coke were distributed between the Northern Countries. In this connection it should be borne in mind that three of these

countries, Norway, Sweden and Finland, possess exceptional facilities for the production and utilization of large volumes of hydro-electric power, and that the water-power already developed constitutes 95, 65 and 50 per cent. respectively of the total horse-power of the prime movers of these three countries.

*Imports of Coal and Coke.*

| | Coal | | Coke, briquettes | |
|---|---|---|---|---|
| | Quantity 1 000 tons | Value £ 1 000 | Quantity 1 000 tons | Value £ 1 000 |
| Denmark .... | 3 890 | 3 370 | 1 420 | 1 803 |
| Finland ..... | 1 015 | 790 | 207 | 244 |
| Iceland ..... | 139 | 166 | 1 | — |
| Norway ..... | 2 182 | 1 899 | 616 | 874 |
| Sweden ..... | 5 254 | 4 438 | 1 747 | 2 062 |

It was a condition of the trade agreements made in 1933 between the United Kingdom and the Northern Countries that each of these countries should buy a certain agreed percentage of their coal requirements from the United Kingdom. As a consequence, nearly half of the coal imported into Sweden and 70 to 80 per cent. of that imported into the other Northern Countries is of British origin. Taken as a whole the United Kingdom supplies almost 63 per cent. of the total imports of coal to the North. Poland and Germany were the other principal suppliers.

The United Kingdom is also the largest supplier of coke, though its share of the market is rather smaller than for coal. Most of the remaining imports are from Germany, the Netherlands, Belgium and Poland.

Fuel oils.

*Fuel oils* in 1935 were the second largest item among the raw and subsidiary materials imported into the North. The imports of petrol, solar oil and the like, as well as kerosene, which in 1935 totalled 1.9 million tons, to a value of £ 6,800,000, were distributed as follows:

| | Quantity 1 000 tons | Value £ 1 000 |
|---|---|---|
| Petrol ..... | 846 | 3 961 |
| Solar oil, etc. .. | 802 | 1 824 |
| Kerosene ..... | 266 | 980 |

Of all countries only the United Kingdom and Germany had larger petrol imports than the North. In 1935 the Northern Countries absorbed 7.7 per cent. of the world's total exports. The heavy consumption of petrol is due to the extensive employment of the automobile in the North. Next after France and the United Kingdom, Denmark and Sweden with 36 and 24 automobiles per 1,000 inhabitants are the countries with the highest number of motor vehicles in proportion to the population in all Europe.

Of other liquid fuels almost the same quantity was imported as of petrol. This is due to the prominent place occupied by these countries in the production and use of Diesel and other crude oil motors. A large part of the oil is used in the fishing fleets of the Northern Countries, which are extensively fitted with internal combustion engines. In Denmark, where only small stretches of the railways are electrified, fuel oil is used in growing quantities as the motive power in Diesel-electric rail-cars, as well as for fuel for stationary motors.

The imports of kerosene are of much less importance, though they still have a value of about £ 1,000,000. All the Northern Countries are electrified to such an extent that the towns are almost exclusively lighted by electricity, and the rural areas extensively so.

The principal suppliers of these liquid fuels are the U.S.A., the United Kingdom and the U.S.S.R.

Crude metals.

Having regard to the prominent position of the engineering and shipbuilding industries in some of the Northern Countries, the imports of *crude iron and steel and other metals*, which in 1935 had a value of about £ 5,700,000, may seem relatively small. The position is, however, that, in conformity with the classification employed by the International Bureau of Trade Statistics, the sum mentioned includes only metals in the crude state, and that the imports of these are somewhat small, for there is little iron or steel rolling in the Northern Countries except Sweden. Ship plates, constructional iron and similar rolled products of iron and steel are imported from abroad.

Of the crude metals imported, *copper* represents about one-fourth of the value, *iron* and *steel* almost as much. The remainder

of the imports consists mainly of tin, lead, zinc and nickelcopper-matte. Of the total imports Sweden accounted for £ 3,300,000, Denmark and Norway about £ 1,000,000 each, whilst Finland imported to the value of £ 300,000.

Oil seeds and kernels; oilcake.

Of *oil seeds* and *kernels* as well as *oilcake*, of so great importance to the oil-extracting industry and agriculture, the imports in 1935 were as follows:

*Imports of Oil seed and Oilcake.*

| | Oil seed and kernels | | Oilcake and meal | |
|---|---|---|---|---|
| | Quantity 1 000 tons | Value £ 1 000 | Quantity 1 000 tons | Value £ 1 000 |
| Denmark | 470 | 3 799 | 603 | 3 339 |
| Finland | 4 | 35 | 52 | 305 |
| Iceland | — | — | — | — |
| Norway | 81 | 829 | 52 | 317 |
| Sweden | 174 | 1 371 | 201 | 1 098 |
| Total | 729 | 6 034 | 908 | 5 059 |

Of the oil seed and kernels imported in 1935 about £ 2,400,000 consisted of soya-beans, whereas the figures for copra and linseed were £ 1,550,000 and £ 900,000 respectively. The remainder consisted mostly of ground-nuts and palm kernels.

Imports of oilcake are for the most part made up of varieties that are manufactured only in small quantities in the North, for example cotton-seed cake and sunflower-seed cake, but there is also a large volume of imports of other concentrates.

In dealing with agriculture and the manufacturing industries an account was given of the importance of these commodities for the maintenance of the production and export of animal foodstuffs. As an additional illustration, however, it may be mentioned that according to calculations made on the basis of what happened when supplies were difficult to obtain during the Great War, every time the Danish farmers were forced to reduce the feed of concentrates by 1 kilo, the cows retaliated by yielding $2\,^1/_2$ kilos less milk.

The inter-Northern trade in oilcake and meal is considerable, amounting to about one-fifth of the whole import quantity given above.

Fertilizers.

Supplies of fertilizers from abroad are also of very great importance in maintaining agricultural production. As has been explained, however, when dealing with the fertilizing industry of the Northern Countries, a considerable output of artificial fertilizers, especially superphosphate and nitrate of lime, is effected in the North, and there is quite a large inter-Northern trade in these products. Of the 1935 imports of some of the principal kinds of fertilizers quoted below, in all 1,047,000 tons valued at £ 4,200,000, 112,000 tons valued at £ 700,000 represented inter-Northern trade.

*Imports of Artificial Fertilizers.*

| | Quantity 1 000 tons | Value £ 1 000 |
|---|---|---|
| Crude phosphate ..... | 410 | 777 |
| Superphosphate ..... | 113 | 312 |
| Nitrate of lime ..... | 173 | 1 169 |
| Chile saltpetre ..... | 93 | 644 |
| Ammonia, sulphuric ..... | 43 | 268 |
| Potash, 37—40 % ..... | 215 | 992 |

Materials for spinning.

Of the raw materials of the textile industry the demand for *cotton*, which is the largest item, is met entirely by imports, and, apart from Iceland and Norway, most of the *wool* used is also of foreign origin. In 1935 the imports of these two important products were as follows:

*Imports of Cotton and Wool.*

| | Cotton | | Wool | |
|---|---|---|---|---|
| | Quantity Tons | Value £ 1 000 | Quantity Tons | Value £ 1 000 |
| Denmark .. | 7 600 | 460 | 2 000 | 286 |
| Finland .... | 12 500 | 807 | 2 400 | 381 |
| Iceland..... | — | — | — | — |
| Norway .... | 2 900 | 171 | 1 000 | 151 |
| Sweden .... | 27 800 | 1 737 | 8 600 | 1 118 |
| Total | 50 800 | 3 175 | 14 000 | 1 936 |

The greater part of the cotton, about 44,000 tons, came from the U.S.A. The wool mostly came from the Argentine and the

British Dominions, but was bought to a great extent in the United Kingdom. Of other raw textile materials bought in large quantities there are *hemp*, of which about 23,000 tons, of a value of £ 470,000, were imported in 1935, as well as *flax* and *jute*.

There is a greater output of *hides* and *skins* in the Northern Countries than the home market can absorb; this applies to cow-hides and calf-skins first of all, and also to sheep-skins as far as Iceland and Norway are concerned. But while there is a large export trade in hides, a total of 42,000 tons of hides and skins to a value of about £ 2,200,000 were imported in 1935. Imports comprise mainly hides of South American, and to some extent South African, origin for sole leather.

Mention has already been made of the principal raw materials imported by the Northern Countries for use in agriculture and in the metal, textile and leather industries. These materials, however, represent only about two-thirds of all the raw materials these countries import. The remainder comprises timber, an item which weighs especially heavy in the imports of Denmark and Iceland from the rest of the North, salt, rubber, and many other products which, however, it would carry us too far to describe here.

Manufactured goods.

Much more diversified, however, are the imports of *manufactured goods* which, as already stated, in 1934 represented about half the value of the total purchases from foreign countries. When dealing with the manufacturing industries of the Northern Countries in previous chapters it was endeavoured to give a picture not only of their own production of these goods, but also of the extent to which that production must be supplemented from outside in order to meet demand.

For that reason no attempt will be made here to explain the importance of the Northern Countries as a market for the various commodities in this main group. This account will confine itself to a broad outline of the composition of the imports as far as the most important categories are concerned. With this in view the following table is given to show the 1935 imports of some of the chief groups of manufactured goods.[1])

[1]) The grouping differs a little from that employed in the official statistics, which is not quite the same for all the countries.

*Imports of Manufactured Articles.*

| | Denmark | Finland | Iceland [1]) | Norway | Sweden | Total |
|---|---|---|---|---|---|---|
| | | | £ mill. | | | |
| Manufactured goods of iron and other metals ..... | 6.1 | 3.4 | 0.3 | 4.5 | 5.9 | 20.2 |
| Machinery and apparatus .. | 2.0 | 2.4 | 0.2 | 2.7 | 5.1 | 12.4 |
| Ships ..... | 0.1 | 0.2 | 0.1 | 2.8 | 0.2 | 3.4 |
| Motor vehicles and other means of transport .... | 1.8 | 0.7 | 0.1 | 1.1 | 2.8 | 6.5 |
| Yarn and thread ..... | 1.5 | 0.6 | — | 1.5 | 2.9 | 6.5 |
| Other textiles and clothing (incl. footwear) | 5.7 | 1.6 | 0.4 | 4.2 | 6.7 | 18.6 |
| Dyes and colours ..... | 0.5 | 0.4 | — | 0.4 | 1.3 | 2.6 |

Of the imports of manufactured articles *iron, steel* and *other metals*, which exceeded £ 20,000,000 in value, the greater part consisted of plates and sheets, bar iron, rails, angle iron, pipes and tubes and similar heavy goods, which are not produced, or at least only to a limited extent, in the Northern Countries. The imports of iron and metal in a more advanced state of manufacture are also very considerable, however, and include articles of every kind. Germany and the United Kingdom supply most, but a number of other countries are suppliers too, among them being Belgium, France, Czechoslovakia and Poland.

On the whole it is the same countries, together with the U.S.A., Switzerland and the Netherlands, which supply the main part of the machinery and apparatus to the Northern Countries.

*Ships* are an important item to Norway especially, for that country has incomparably the largest mercantile marine of the Northern Countries. This, however, is to some extent an inter-Northern trade, quite a large part of the ships bought by Norway being supplied by Danish and Swedish shipbuilders.

Of other means of transport, motor cars and parts thereof are much the most important item, for they represent the main part of the total import value of this goup. The cars mostly used in the North are American, and the market is partly supplied from the assembling factories established there. How-

[1]) 1934.

ever, there is also a large sale of motor cars of other origin, particularly British and German.

As will be seen, the imports of *textiles* and *clothing* had a value of no less than about £ 25,000,000 in 1935. About one-fourth of this total was for yarns, of which cotton and linen yarns were the largest item with £ 2,900,000 as against £ 2,300,000 for woollen yarn and £ 1,400,000 for silk and artificial silk yarns. Regarding the actual character of the textile imports, details will be found in chapter VII.

*Chemico-technical* commodities are a very important item in the imports; of the many different categories coming under this heading, dyes and colours are one of the most important next after fertilizers. Of the total imports of dyes, £ 2,600,000, most were aniline dyes and colouring earth, of which only little is produced in the North.

The industrial products just referred to account for about three-fourths of the total imports of manufactured articles into the Northern Countries. Many others might be mentioned; for example, glass, porcelain etc., leather and rubber goods, paper and paper goods, electrical articles and instruments. However, as already stated, it is not the intention to make a complete analysis here, but simply to give an impression of the North as a buyer of the products of other countries. This is perhaps the more necessary as, at any rate until recent years, the outside world has no doubt thought of the Northern Countries more as suppliers and maybe as competitors than as customers. This conception is due to the fact that the main part of their exports, as a consequence of a somewhat unilateral production, are limited to relatively few commodities, which on the other hand are sold in very large quantities, whereas imports, though exceeding the exports in value — to the extent of about £ 17,000,000 annually for the last two years — are distributed over a much greater number of commodities and therefore do not attract so much attention as exports.

*Principal sources of supply.*

As regards the imported commodities singled out for special mention here the principal sources of supply have also been indicated. It is natural, however, to make a closer examination of

imports into the North from a geographical point of view, as was done with exports. For this purpose *Table 24* has been drawn up to show how the purchases in 1935 of the North in the aggregate as well as of the individual Northern Countries, were distributed over all the more important sources of supply, indicating both the absolute value and the volume as a percentage of total imports. It will be seen that the picture thus arrived at for the sources of supply to the Northern Countries is very like that given in the previous chapter for the distribution of the exports. The Northern Countries take their imports from practically all the countries in the world, but the main part comes from some few countries which, while being the largest suppliers, are also the most important customers.

Of the total imports, 83.3 per cent. came from European countries, whereas 14.3 per cent. came from America, 1.7 per cent. from Asia, 0.5 from Africa and 0.2 per cent. from Australia. It should be remembered, however, that the figures indicate the country of purchase and not the country of origin. If the latter were taken into account, the share of oversea countries in the imports would be higher, for even if the tendency is towards an expansion of the direct trade with oversea countries, very large purchases are still made of oversea products in the great European commercial centres.

Disregarding inter-Northern trade, which for the imports of 1935 amounted to 12.8 per cent. of the total, three countries are the principal markets of the North, viz: the United Kingdom, Germany and the United States, which are also their principal suppliers, for no less than 56.4 per cent. of the imports come from them. With 25.7 per cent. of the imports the United Kingdom is the largest supplier, but Germany with 21.6 per cent. is not far behind; the United States supplied 9.1 per cent. of the imports. None of the other countries approach these in importance; the nearest are the Netherlands with 3.9 and France and Belgium with 3.2 and 3.1 per cent. of the total imports of the North.

A consideration of the purchasing centres of the individual Northern Countries will show that the distribution is a very uni-

form one. For all countries except Sweden we find that the United Kingdom holds first place as the supplier, with Germany coming next, and even for Sweden the United Kingdom is not very far behind Germany. Disregarding the inter-Northern trade, the United States is No. 3 on the list for all the Northern Countries with one exception, Iceland, which buys more from its large customers Spain and Italy than from the United States.

As is the case with its exports, Denmark is the country whose imports are most concentrated, for no less than 58 per cent. come from the United Kingdom and Germany, whereas these countries' total share in the imports of the other Northern Countries lies between 40 and 45 per cent.

This distribution of purchases is based upon the import statistics of the Northern Countries, but if it is desired to form an opinion of the importance of the North as a market for some of the most important suppliers in comparison with the latters' other markets, their own export statistics must provide the foundation. As regards the United Kingdom the consequent result is that in 1935 the Northern Countries bought goods to the value of over £ 37,000,000, or 7.8 per cent. of the United Kingdom's total exports, or 14 per cent. of its exports to countries outside the Empire. This compares with the United Kingdom's exports to U.S.A. 6.8 per cent., to Germany 5.5 per cent., and to France 4.9 per cent. Not only were the Northern Countries taken together the United Kingdom's largest customer i Europe, but they were surpassed only by India, which with its 360 million people bought a trifle more, viz. about 8 per cent. of the United Kingdom's total exports. One special circumstance worth noting is the increase of British exports to the Northern Countries in the period which has elapsed since the trade agreements were concluded in 1933 between these countries and the United Kingdom. From 1933 to 1935 the value of the United Kingdom's exports to the rest of Europe rose by about £ 11,000,000, and of this increase more than half went to the Northern Countries. In the same period her exports to extra-European countries outside the Empire rose by about £ 6,000,000; this actually means that British exports to all these oversea countries, which include China, Japan, the United

States, South America, Egypt, Turkey, etc. rose only a trifle more than the exports to the relatively small Northern Countries.

Trade with the Northern Countries is also of great importance to Germany, and more than one-tenth — in 1935 11.8 per cent. — of Germany's total exports are now sent to the North, which as a market for German goods thus comes not only before the United Kingdom, France and the U.S.A. but also the Netherlands, which by their situation and economic structure present a good market for German industrial products and which at times have occupied first place among Germany's customers.

As regards the United States, too, trade with the Northern Countries is of importance. In 1935 they were fourth on the list of European customers of the U.S.A., being exceeded only by the United Kingdom, France and Germany. The Northern Countries are also a factor as buyers of the products of France, for, with the exception of the United States, it is only to its nearest European neighbours that France sells more than to the Northern Countries.

CHAPTER X.

# SHIPPING.

*Introduction.*

In every seaport throughout the world the flags of the Northern States may be seen fluttering from the mast-heads. No matter how remote a port or loading-place may be, it is almost certain to be visited by ships from the North. At first glance it may be found surprising that these countries, which all told do not contain more than 16 $^1/_2$ million people or 0.8 per cent. of the total population of the world, should yet possess 11 per cent. of the world's tonnage. Only the British Empire and the U.S.A. have tonnage in excess of this figure.

How can this be explained? We need only cast a glance at the map to find the answer. The position of the Northern Countries, with their extensive coastlines, has necessarily brought the inhabitants in close touch with the sea. The sea has always been to them an important means of communication, and it is on the sea that a large proportion of the coast population has had to seek a livelihood by fishing and shipping. This applies particularly to Norway, with its long bare coast, where it has been a vital necessity for the people to engage in shipping. This industry is consequently natural to the Northern Countries; and in the international division of labour the North performs useful work in this field for the rest of the world.

Seafaring has long traditions in the North. As far back as historical records take us we find accounts of the part played by the shipping trade. Even in the days of the Vikings a thousand years ago, vessels from Northern lands crossed the seas to France

and England, and farther afield to Mediterranean countries; they even sailed to such distant shores as Greenland and the American continent. Although these voyages may not always have been for peaceful trading purposes, they yet furnish evidence of the high stage of development which shipping had attained in the North at that early period. Expansion since those days has, however, not followed an even course. There have been periods of decline. But the shipping trade flourished again, and a flourishing shipping industry has always meant prosperity in these countries. Such a period of prosperity was experienced from 1850 to around 1875, when the shipping industry underwent rapid expansion and secured an increasing portion of world trade. In 1875, for instance, the Northern States together represented more than 12 per cent. of the world's tonnage. Those were the grand days of the sailing-ship. But then followed a period of stagnation, because the Northern Countries were in the initial period not capable of keeping abreast of developments in the change over from sail to steam. This period did not, however, last long, and from the 'nineties the replacement of sailing vessels made rapid headway.

*Size and composition of the merchant marine.*

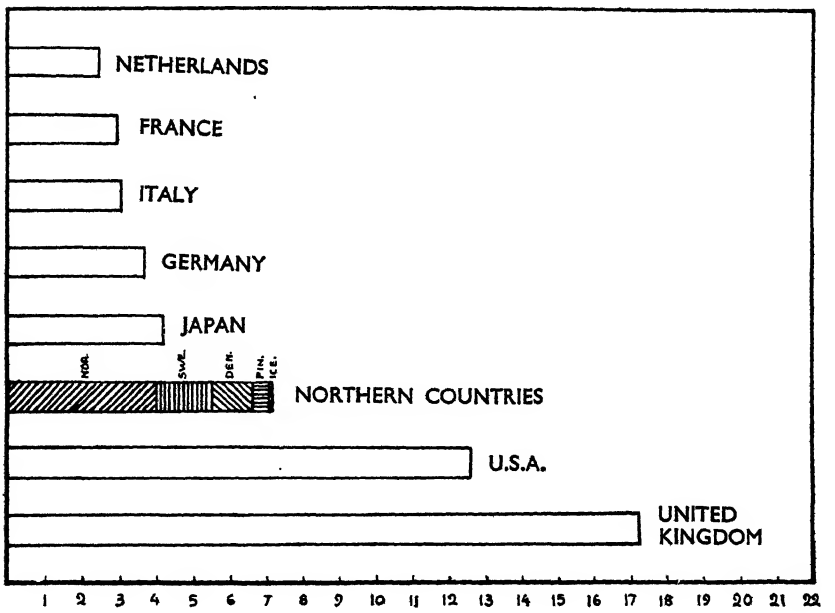
Prior to the Great War the merchant services of the Northern States totalled 4.8 million gross reg. tons, or 9 per cent. of the world tonnage of 47.0 mill. gross reg. tons (*Table 27*). As a result of the losses sustained during the War tonnage was reduced, so that it amounted after the War to approximately 4 million tons or 7 per cent. of world shipping. However, no time was lost in the work of reconstruction. In 1936 merchant shipping had increased to 7.2 million tons, or 11 per cent. of the world's tonnage of 65 mill. gross reg. tons. The appended figures show the mercantile marine in the Northern States and in the leading seafaring countries on July 1, 1936.

Only the United Kingdom and the U.S.A. have larger fleets than the Northern States combined. Taking these states separately we find that Norway occupies an exceptional position, having a fleet only slightly less than that of Japan. Norway ranks fourth among the seafaring nations.

*Ships exceeding 100 gross reg. tons on July 1, 1936, according to Lloyd's Register.*

| | No. of ships | 1 000 gross tons |
|---|---|---|
| Denmark | 701 | 1 136 |
| Finland | 359 | 481 |
| Iceland | 72 | 32 |
| Norway | 1 859 | 4 055 |
| Sweden | 1 259 | 1 515 |
| *Northern Countries* | 4 250 | 7 219 |
| United Kingdom | 7 246 | 17 285 |
| France | 1 420 | 3 002 |
| Italy | 1 246 | 3 098 |
| Netherlands | 1 420 | 2 511 |
| Germany | 2 094 | 3 718 |
| U.S.A. | 3 576 | 12 577 |
| Japan | 2 367 | 4 216 |
| Other countries | 7 304 | 11 458 |
| World tonnage | 30 923 | 65 084 |

*The Merchant Fleets of Some Important Countries in 1936.*



If, however, account be taken of population, the Northern Countries occupy a much higher place in the list:

*Gross Tonnage per 1 000 Inhabitants in 1936.*

| | Gross tons |
|---|---|
| Denmark | 309 |
| Finland | 135 |
| Iceland | 281 |
| Norway | 1 412 |
| Sweden | 243 |
| United Kingdom | 347 |
| France | 72 |
| Italy | 73 |
| Netherlands | 299 |
| Germany | 56 |
| U.S.A. | 98 |
| Japan | 62 |

Norway has a higher figure than any other country; Denmark ranks third, Iceland fifth, Sweden sixth, and Finland seventh.

The Northern Countries do not possess giant liners and luxury ships, nor do they compete for the blue riband of the Atlantic; but they have very up-to-date fleets. In point of technical equipment, no country in the world has better ships than those of the Northern States. The sailing-ship has disappeared; there are only a few left in Finland. We are now in the days of the motorship. The first ocean-going motorship in the world was built in Denmark in 1912, but to-day the motor fleets of the Northern Countries represent not far short of one-half of their merchant shipping. (Of the total world tonnage about one-fifth is motor-driven.) This merchant shipping is being constantly renewed. If we exclude sail tonnage, we find that 37.4 % was under 10 years of age in 1936, whereas 26.4 % of world shipping was below that limit. The percentage under 5 years was 10.4 as against 7.7 for world tonnage (*Table 28*). A large proportion of this shipping consists of relatively small and medium-sized ships of a type most suitable for the trades in which the Northern Countries have been engaged. Whereas 16 % of world tonnage was under

THE ROMSDALS FJORD, NORWAY
A GLIMPSE OF THE »HOMELAND OF SKI-ING».

2,000 tons, 30 % of the Northern fleets fell below this limit. Particularly Denmark, Finland, and Sweden have comparatively many vessels under 2,000 tons. The majority of Norwegian ships are of from 4,000 to 10,000 gross tons (*Table 29*).

A distinctive feature of the mercantile marines of the Northern States is the large number of ships designed for special trades. Norway, in particular, but also Denmark, and to some extent Sweden, have in great measure taken up special trades. This applies primarily to tankers. Of the total tanker tonnage of the world in 1936 more than 20 % was owned by the Northern Countries, of which 18 % by Norway. Of the total Norwegian tonnage, tankers represented as much as 40 %. Then there are special fruit boats, of which Denmark and Norway have a considerable number, whilst Sweden has special ships for the ore trade. But there are also many other special ships, one such speciality being represented by the Norwegian whaling fleet.

*The principal ports.*

In connection with the figures for the merchant marine we may say a few words about the ports of the North. By reason of the large number of fjords and estuaries it is natural that there should exist many excellent harbours. The most important seaports are as follows:

*Denmark:* Copenhagen, Aalborg, Aarhus, Esbjerg, Odense.
*Finland:* Helsinki/Helsingfors, Viipuri/Viborg, Kotka, Turku/Åbo, Hanko/Hangö.
*Iceland:* Reykjavík.
*Norway:* Oslo, Bergen, Stavanger, Trondheim, Drammen.
*Sweden:* Gothenburg, Stockholm, Malmö, Hälsingborg.

Certain of the northernmost ports in Sweden and Finland are partially blocked by ice in the winter, but thanks to a well-organised service of ice-breakers the period of navigation has been constantly extended. The largest seaports are well equipped with quays, sheds, and up-to-date plant for loading and discharging.

The Northern Countries also carry on a not inconsiderable transit trade. This is more particularly true of Denmark and Sweden. With a view to facilitating this trade certain free-ports have been established, e.g., at Copenhagen in Denmark and at Gothenburg, Stockholm and Malmö in Sweden.

*Trades in which Northern shipping is engaged.*

Northern shipping is employed primarily in foreign trades. Home traffic absorbs only a comparatively small share of the vast merchant fleet of these countries; but this traffic should also be mentioned, because it plays an important rôle in maintaining internal communications. There is a considerable amount of traffic along the coasts as well as on the navigable rivers and lakes. For extensive districts in Norway, for instance, the sea is the most important means of communication. The predominating part of the merchant shipping is, however, engaged in trading with other countries.

The share which the mercantile marines of the Northern Countries represent of world tonnage gives a rough gauge of the part played by the North in the sea-borne trade of the world. As has been pointed out above, the shipping of the Northern States totals 11 % of the world's tonnage; but the amount of traffic

borne differs considerably for various countries. This will be seen from the returns of the tonnage represented by the ships entered in the respective countries. It is obvious, however, that these figures only give a very approximate idea of the extent of this carrying trade. In order to give a true picture it would be necessary to submit returns of the quantity of merchandise carried; but such figures are not available. *Table 30* in the table section gives complete figures of the tonnage of ships entered at ports in 27 countries in 1934, with separate returns in respect of the tonnage of Northern Countries and of the tonnage of the country concerned. Even though there are many countries missing from this table, yet it conveys a good idea of the part played by Northern shipping in the trade with a number of the more important countries, not only in Europe but also overseas. We find that the following survey furnishes the clearest picture of the extent of the total trade of the shipping of the Northern States with these 27 countries:

*Tonnage of Vessels arrived to Different Countries.*

| Country | Total net tonnage entered; cargoes and ballast | Of which under the flags of the Northern Countries | |
|---|---|---|---|
| | 1 000 tons | 1 000 tons | Percentage |
| Denmark [1] | 8 873 | 6 236 | 70.3 |
| Finland [2] | 5 381 | 3 061 | 56.9 |
| Iceland | 267 | 205 | 76.9 |
| Norway | 6 915 | 5 301 | 76.7 |
| Sweden [1] [3] | 10 600 | 7 595 | 71.7 |
| Estonia | 942 | 288 | 30.5 |
| Latvia | 1 463 | 320 | 21.9 |
| Danzig | 3 175 | 1 372 | 43.2 |
| Poland (Gdynia) | 4 142 | 1 879 | 45.4 |
| Germany | 29 255 | 5 603 | 19.1 |
| Netherlands | 26 149 | 3 882 | 14.9 |

[1]) Exclusive of ferry traffic.

[2]) Including trade on the Ladoga.

[3]) For the sake of comparison the figures in the Swedish and Belgian statistics have been reduced by 20.6 and 15 % respectively as these countries have not the same rules as the other countries for measurement of the tonnage.

| Country | Total net tonnage entered; cargoes and ballast 1 000 tons | Of which under the flags of the Northern Countries 1 000 tons | Percentage |
|---|---|---|---|
| Belgium | 22 128 | 3 491 | 15.8 |
| United Kingdom | 85 359 | 12 316 | 14.5 |
| Irish Free State | 8 726 | 524 | 6.1 |
| France | 54 356 | 3 706 | 6.8 |
| Spain [1] | 31 769 | 3 035 | 9.5 |
| Italy | 20 595 | 814 | 4.0 |
| Greece | 6 177 | 201 | 3.3 |
| U.S.A.[2] | 53 132 | 6 101 | 11.5 |
| Canada [2] | 28 512 | 3 131 | 10.9 |
| Chile | 1 611 | 225 | 13.9 |
| Union of South Africa | 5 556 | 401 | 7.2 |
| British Indies | 8 464 | 373 | 4.5 |
| Japan | 65 981 | 2 900 | 4.4 |
| China | 22 466 | 1 431 | 6.4 |
| Australia | 5 353 | 523 | 9.8 |
| New Zealand | 2 633 | 140 | 5.3 |

It will be observed from column 2 that the fleets of the Northern Countries primarily call at the Northern Countries themselves. Sweden heads the list at 7.6 million tons, then comes Denmark with 6.2 mill. tons, Norway with 5.3 millions, and Finland with 3.1 millions. Of this the larger part is contributed by the respective country's own ships, which carry about half of the total trade, with the exception of Finland and Iceland, where approximately one-third and one-fifth respectively of the ships entered fly the country's own flag. The remainder of the trade is consequently carried by the other Northern Countries and the ships of other nations, primarily British and German ships, but also by those of the Netherlands, the United States of America, France, and other countries. Trade with Northern ports is of course free and open to all comers, and consequently the flags of every seafaring nation are to be seen there.

As we have mentioned, the figures for many countries are missing from this table, but it nevertheless gives a good idea of

[1] Unit of measurement: Toneladas de arqueo.
[2] Lake trade not included.

how very comprehensive this trade is. The most remote countries are visited regularly by the ships of the Northern Countries. In fact, there does not exist a seaport of any importance in any part of the world that is not visited by the ships of the North.

The bulk of this traffic is with the countries bordering the North Sea. As will be seen, Great Britain registers the greatest amount of tonnage entered. But the Baltic and the Mediterranean are also important areas for Northern shipping.

Oversea countries, notably the U.S.A., play a big part; but the traffic extends also to the Far East, where Japan and China in particular are included in Northern shipping services. Australia and Africa must also be mentioned.

*The Northern Countries' share of the shipping trade to various countries.*

Turning to the figures indicating the share which the Northern States have of the shipping trade to different countries, we find that it varies considerably, from 3.8 to 45.4 % of the total traffic to the respective country, but in the majority of cases the ships of the Northern Countries account for between 5 and 15 % of the trade. This is a high figure in proportion to the share held by most other countries, but as a rule it falls far short of the share contributed by the respective country's own ships. In the great seafaring countries it frequently happens that the nation's own ships do approximately half of the trade measured in terms of tonnage of ships entered. This applies, for instance, to both England and Germany.

A study of the tonnage entered at ports in Great Britain and Germany shows that the Northern Countries combined rank first after the country's own shipping. In respect of the U.S.A. the Northern Countries again occupy the second place. It is only British shipping that takes precedence.

It will be realised that this extensive shipping trade with the various countries does not consist only of the conveyance of merchandise from or to Northern ports. Northern shipping engages very extensively in the trade between foreign countries. Of the Norwegian merchant marine from 80 to 90 % runs in trades between foreign countries. The Danish service, too, is in great measure engaged in inter-foreign trade, about 70 % of the gross freights in foreign trades being earned on freights between

foreign ports. In the case of Sweden, the purely foreign trades do not figure so prominently; nevertheless, roughly 40 % of the gross freights are earned in inter-foreign traffic. For Finland the percentage ranges from 25 to 30.

As already mentioned, the operations of the merchant marines of the North embrace the whole world, and they engage in the carriage of all the staple world commodities. Their ships are to be found in the coal, ore, fish, wood, and pulp trades on the North Sea, in the wood and coal traffic of Baltic ports, in the timber and wood trade of the White Sea, and in the fish, coal, and fruit trades of the Mediterranean. They engage in oversea trade, carrying oil, grain, wood, and fruit, and in the East-Asiatic trade with cargoes of coal, rice, paper, and so forth. Also as carriers of general cargo the ships of the North contribute their share; this refers especially to the regular services.

Northern shipping has not confined its activities to the old established trade routes. It has constantly sought fresh fields. As pioneers, Northern shipowners have opened up trades in new areas, and in this way have been instrumental in developing the export trade of many countries.

*Special trade and regular trade.*

Northern shipowners have often taken up *special trades*, of which we may mention a few examples. Tankers, as previously mentioned, occupy a very prominent place in Norwegian shipping. Of Norway's mercantile marine approximately 40 % consists of tankers. In this field Norway has virtually been a pioneer. Another speciality is the fruit trade, which Norway, in particular, has developed, but which has been extensively adopted also by Denmark. In addition, the Northern Countries have specialised in various other trades which cannot be dealt with in this brief survey.

*Regular trades* are also a distinctive feature of Northern shipping. The first services are of considerable age; but it was not until the opening of the present century that expansion began to gather strength. The many regular services now in operation include not only European countries, but also oversea ports. There are such services to America, both east and west coasts, to the Far East, and to Africa and Australia. In this direction there

have been enormous developments, so that the system of regular services now embraces the entire globe.

It will be obvious that the earnings of Northern shipping represent large figures.

*Gross Freight Earnings in 1935.*

*Gross freight earnings.*

| | (a) Voyage freights £ mill. | (b) Time freights £ mill. | (c) Total £ mill. | (d) Disbursements abroad £ mill. | (c)—(d) £ mill. |
|---|---|---|---|---|---|
| Denmark .. | 7.9 | 1.3 | 9.2 | 3.3 | 5.9 |
| Finland .... | 2.6 | 0.2 | 2.8 | 1.0 | 1.8 |
| Norway .... | 15.4 | 6.2 | 21.6 | 11.1 | 10.5 |
| Sweden .... | 12.3 | 0.7 | 13.0 | 6.3 | 6.7 |
| Total | 38.2 | 8.4 | 46.6 | 21.7 | 24.9 |

It will be seen that voyage and time freights for 1935 total £ 46.6 millions, but it should be observed that a large portion of these earnings does not accrue to the home countries, for the ships have very heavy expenses abroad, as the above table shows. These outlays are for coal, oil, provisions and other ship's stores, port charges, and so forth. In all they amounted to no less than £ 21.7 millions out of total earnings of £ 46.6 millions. This leaves £ 24.9 millions, of which £ 5.9 millions fall to the account of Denmark, £ 1.8 millions to Finland, £ 10.5 millions to Norway, and £ 6.7 millions to Sweden. Along with the earnings of the export trade, etc. these sums go to pay for the imports of the Northern States; in fact, quite a substantial share of the cost of imports is met by freight earnings. The Northern Nations would not have been such good buyers as they are if they had not had their big shipping trade.

The earnings yielded by the shipping trade are obviously an important factor in the economy of the Northern States. Of Norway's total national income 10 per cent. is derived from this industry. For the other Northern States shipping plays a somewhat less important rôle.

The figures given in this brief survey show how prominent a position the Northern Countries occupy among the seafaring

nations. Through times of prosperity and depression these countries have succeeded in maintaining their place in world shipping. And the fact that they have been able to do so is due as much to the Northern seaman as to anything else. From infancy the people dwelling in the extensive coastal districts have been accustomed to sea-faring, and this has rendered them skilful in seamanship and has imbued them with a love of the sea, with the result that Northerners rank among the best seamen in the world. The shipping industry of the Northern States has never been granted any subvention; it has always had to rely entirely on its own strength.

CHAPTER XI.

# COMMUNICATIONS AND THE TOURIST INDUSTRY.

*Introduction.*

With their beautiful, distinctive, and diversified natural scenery, and their characteristic types of people, the Northern Countries have been much visited by foreign travellers, who have come as tourists seeking rest and recreation, summer and winter, in a healthy climate, with opportunities for shooting, fishing, and sports; and in other instances they have come with a view to transacting business.

Considering the strength of the ties existing between the North and the rest of the world, it is but natural that the Northern Countries should have well developed communications with foreign countries.

The railways are linked up with the European system; steamship services exist to every foreign port of any importance, and there are regular air services.

Internal communications are also good. The various districts are connected by rail, and a system of good roads is worked by numerous automobile services. Communication along the extensive coasts is maintained by steamship services, and there is also brisk traffic on the canals and the large lakes.

*Railways.*

The Northern Countries have in all approximately 32,500 km (20,300 miles) of railway, of which Denmark has about 5,500 km, Finland about 6,000 km, Norway about 4,000 km, and Sweden about 17,000 km.

Denmark has a very dense system of railways, amounting to 119 km per 1,000 sq. km. This figure is exceeded in only a few countries in Europe. The other Northern Countries, with their

extensive area and sparse population, are not very densely railed (Sweden 37.4, Finland 14.4, and Norway 12.0 km per 1 000 sq.km).

With her abundant supplies of cheap hydro-electric power, Sweden has in recent years electrified a substantial part of her railways, and progress in this direction is constantly being made. As a result, trains are run at a greatly increased speed. In Norway, too, some of the railways have been electrified.

In Denmark, diesel-electric locomotives have been extensively adopted for drawing the so-called »lightning» trains, which attain a speed of more than 100 km an hour and are now in use on most of the main lines. Such trains now serve approximately 700 km of railway.

The rolling stock is of a high standard of quality on the Northern railways. Long-distance trains have restaurant-cars. All the Northern Countries run sleeping-cars for all three classes. The first-class cars have single berths, second-class two berths, and the third-class compartments have sleeping accommodation for three. Day-trains in Norway include observation-cars — the so-called tourist cars — both second and third class; in Sweden there are saloon-cars for first, second, and third class passengers.

The Northern system of railways is linked up with the European continent:

From Germany through Schleswig-Holstein to Jutland (Denmark),
» » by ferry Warnemünde-Gedser to Denmark (2 hours' crossing),
» » by ferry Sassnitz-Trälleborg to Sweden (4 hours' crossing),
» U.S.S.R. (Leningrad) via Rajajoki to Finland (Helsinki/Helsingfors).

Between the Northern Countries themselves there are a number of railway connections, in some instances with railway ferries carrying the entire train, both passenger cars and goods wagons, so that re-loading and changing are obviated.

*Automobile traffic.* In recent years automobile traffic has developed at a great pace in the Northern Countries, and it now plays a very great part in the maintenance of communications.

In 1935 Denmark had 132,000 motor cars, Iceland 3,000, Finland 33,500, Norway 63,000, and Sweden 159,000. The average number of inhabitants per car was 42 in 1935. This figure is not comparable with conditions in the U.S.A., which has one car for each fifth inhabitant, but in Europe there is no country, excepting France and Great Britain, that possesses a larger number of motor cars in proportion to the population than do the Northern Countries.

To the Northern Countries as well as in inter-Northern communications there exist a number of steamship lines and ferry services by which motor cars may also be conveyed.

Motor services have shown a large increase in late years in the Northern Countries. Numerous automobile services now run in conjunction with railway and steamship services, providing regular communication between the various districts. The length of these motor routes in Norway was about 37,500 km (1934), in Sweden about 95,800 km (1932), in Denmark about 21,000 km (1933), in Finland about 25,000 km (1936), and in Iceland about 3,000 km (1933). The roads in the North are continually being improved and extended to meet the requirements of motor traffic. Automobile services are operated all the year round, summer and winter. The heavy snowfall causes obstruction in many parts, but practically all the main roads are kept open during the winter also.

*Shipping lines.*

A large number of passenger lines keep the Northern Countries in communication with the outside world. Regular services run to a number of important ports in Europe, and direct regular passenger lines maintain connection also between the Northern Countries and the U.S.A.

In addition, these countries run fast, modern freight services to all the more important countries both in Europe and overseas.

In inter-Northern traffic the steamship lines also figure prominently.

*Air services.*

The North is linked up via Copenhagen, Stockholm, and Helsinki/Helsingfors with the European air routes, there being daily services from these cities: from Copenhagen and Stockholm to

South and West Europe, and from Stockholm and Helsinki/Helsingfors to the Baltic countries and Eastern Europe.

From Copenhagen the Northern air services proceed: a) northward via Gothenburg to Oslo, and b) eastward via Malmö to Stockholm, Turku/Åbo, and Helsinki/Helsingfors. The last-named town is in connection via Tallinn, with the Eastern-European air system (Leningrad, Warsaw, etc.), and, in addition, with the Mid-European system of airways (Königsberg, Berlin). Regular air service has also been maintained between Stavanger in Norway and Newcastle in England; and between Oslo and Stockholm.

National air services in Norway have been maintained during the summer months along the coast from Oslo via Bergen to Tromsö, in Sweden between Stockholm and Visby, in Denmark between Copenhagen and Aalborg, and between Copenhagen and Esbjerg; and in Finland: Helsinki—Turku, Helsinki—Tampere, and Helsinki—Viipuri.

*Post, telegraph, and broadcasting.*

As will be evident from the foregoing, the Northern States have excellent postal connections with foreign countries. The telegraph and telephone systems are linked up with those of the outside world.

More than half a century ago *The Great Northern Telegraph Company* undertook the task of connecting Europe with the Far East by a through telegraph service across Asia, linked up with a number of submarine cables in European and East-Asiatic waters.

However, a considerable part of the telegraph traffic is nowadays conducted via radio stations, of which there are several in operation in the Northern Countries.

A year or two ago Iceland, too, erected a short-wave radio station, linking the country up with the radio-telephone service of the rest of the world.

The Northern Countries do not rank among the premier nations in respect of mail correspondence, but the telephone service is highly developed, as will be seen from the following table.

*Post, Telegraph and Telephone Service.*

| Country | Per inhabitant in 1934 | Per 1 000 inhabitants in 1933 | |
|---|---|---|---|
| | No. of Letters | No. of Telegrams | No. of Telephone instruments |
| Denmark | 75 | 735 | 100 |
| Iceland | 28 | 2 217 | 55 |
| Finland | 24 | 248 | 38 |
| Sweden | 89 | 713 | 93 |
| Norway | 53 | 1 317 | 70 |
| *Northern Countries* | 65 | 733 | 78 |
| Belgium | 145 | 700 | 38 |
| France | 142 | 764 | 32 |
| Netherlands | 132 | 633 | 41 |
| Great Britain | 154 | 1 149 | 47 |
| Germany | 84 | 339 | 45 |

Broadcasting has reached a high stage of development in the North, and the number of listeners is increasing at a very rapid pace. Each of these countries has a number of broadcasting stations.

On January 1, 1936 the number of radio licence-holders averaged 109 per 1,000 inhabitants (Denmark 166, Finland 41, Iceland 106, Norway 67, and Sweden 134). By way of comparison we may mention that the number of licence-holders per 1,000 inhabitants was 90 in Belgium, 63 in France, 12 in Italy, 113 in the Netherlands, 158 in Great Britain, 101 in Switzerland, 109 in Germany and 177 in the U.S.A.

*Tourist traffic.*

The natural scenery and the peoples of the Northern Countries possess characteristic features which make it well worth while for foreign tourists to pay a visit to them. Common to all the Northern Countries is the long, light summer season, when Nature unfolds herself in all her wealth and splendour. In the Far North the Midnight Sun, and in the more southerly districts, the light nights, captivate foreign visitors. In other respects each of these Northern Countries has distinctive features calling for the attention of travellers from other lands.

Visitors to Denmark who come with the memory of Hans Christian Andersen's Fairy Tales will find their quaint charm

still alive, not only in country districts where the storks may still be seen building their nests on the chimney-tops, but in Copenhagen too, although now a large and gay city. Few countries have in so small a space a richer variety of scenery: wide sandy beaches, the country-side with its undulating tilled fields and shady beech-woods — all impress the visitor with a sense of the graceful beauty of the Danish landscape. And the Danish waters offer most delightful experiences to foreign yachtsmen who wish to spend their holidays on summer cruises amongst the Danish islands.

Finland's foremost attractions from the tourist's point of view are diversified and beautiful scenery and ample facilities for open-air life: in summer tours may be made along the picturesque shores of the lakes, through the extensive forests or in and out among the islands fringing the coast; and in winter the visitor may indulge in winter sports of every kind and in any part of the country. As examples of the scenic beauty of the country we may mention its 60,000 lakes and 80,000 islands, the endless forests, the light summer nights, the wealth of winter snow, the mountains of Lapland, and the Arctic coast, which can be reached along »the world's one highroad to the Arctic Ocean». And, finally, we may mention that Finland is one of the cheapest countries in Europe in which to travel.

Iceland is the land of great contrasts, with great attractions for the touring public. The land where boiling geysers gush out of the earth against a background of glacier and snow-decked fell. The land where black and sombre lava alternates with endless tracts of lush grasslands and fragrant birch-groves. Lofty mountains in ever-changing forms and hues. Deep, green valleys through which crystal-clear rivers follow their tranquil course, teeming with salmon and trout. Mighty mountain chasms, down which glacial rivers foam with immense power. Mountain and waterfall, rivers and picturesque tarns lying like smiling eyes amid wooded slopes. A wealth of historic memorials from Saga times. Thingvellir, the site of the ancient national assembly, with its fantastic lava formations, about which Lord Dufferin wrote: »It is worth travelling round the world to see Thingvellir alone.»

Ól Magnússon photo.

A TYPICAL LANDSCAPE OF ICELAND
THE CRYSTAL-CLEAR RIVER WINDING ACROSS THE GREEN PASTURES BETWEEN THE WHITE-HEADED GLACIERS, AND THE TRAVELLERS' RIDING-PONIES FEEDING IN THE FOREGROUND.

The Hekla volcano with its majestic crater, and the world-renowned Geyser spring, whose frequent eruptions present a magnificent and fantastic spectacle, when the boiling-hot jets of water are flung 60—70 metres high into the air enveloped in huge clouds of vapour, in which the sunlight is refracted in all the colours of the rainbow. Over the Icelandic landscape there reigns the enchantment of stillness. In these surroundings the foreign visitor may travel safely and comfortably, by car or on the back of an Iceland pony, under the care of skilled guides who are good linguists. It is not without good reason that Iceland has been designated: »The Wonderland of Europe».

Norway is above all the land of »fjord and fjell», of waterfall and glacier; but it is also the land of mighty valleys, smiling fields, and extensive forests. Its long-drawn configuration, with a coast stretching from the shores of the North Sea in the South to the

North Cape and Svalbard on the borders of the Arctic in the North, imparts to this country an impressive wealth of natural scenery, changing over from stupendous majesty to peace and harmony. Not only the summer months with their Midnight Sun and warmth, but also the winter season with sparkling sunshine over the mountain plateaus gives to those who visit the »Homeland of Ski-ing» a rich return in the form of health, happiness, and rest.

In Sweden the natural scenery is no less diversified than in the other Northern Countries. The eye of the foreign visitor will perceive soft meadow-lands in the south, naked granite rocks along the shores of the Skagerak, wooded belts of islands outside Stockholm, and inland he will find lakes so vast that sky and water converge on the horizon, immense forests tracts through which flow rivers with mighty waterfalls; and in the north-west and in the extreme north — in the realm of the Midnight Sun — mountains capped with eternal snow and ice, where herds of reindeer graze on the slopes.

The Northern Countries are visited by tourists from a number of foreign countries, and particularly by English, German, Dutch, French, Austrian, Belgian, Czechoslovakian, and American travellers.

In 1936 Finland was visited by about 55,000 tourists. In addition there were approximately 20,000 business visitors and transit travellers, making a total of roughly 75,000. Total earnings from tourist traffic are estimated to be in the neighbourhood of £ 1,300,000.

It is estimated that Iceland received in 1936 about 8,000 foreign tourists, the majority of whom were on holiday cruises. The income from this source approximated £ 150,000.

In 1936 Norway was visited by 164,000 foreign tourists; this figure is exclusive of transit travellers and those paying business visits, who are estimated to number about 30,000. This makes a total of approximately 200,000. It is computed that the income derived in the same year from tourist traffic amounted to something like £ 2,400,000.

Foreign visitors to Sweden in 1935 totalled roughly 200,000, this figure comprising both pleasure-seekers and business people.

Herluf Lykke photo.

A TYPICAL DANISH VILLAGE CHURCH.

Earnings under this head in that year are computed to have been something like £ 2,700,000.

In the case of Denmark complete statistics for the whole country are not available, but in 1936 Copenhagen was visited by 135,500 travellers from abroad. In addition, 27,000 passengers in cruising liners paid this city a visit. On the basis of these figures the earnings of the tourist industry are estimated to total approximately £ 1,400,000.

In all, the income derived from this source in the Northern Countries amounts to from £ 7 to £ $7\frac{1}{2}$ millions, and of this about £ $2\frac{1}{2}$ millions represent inter-Northern tourist traffic. It will thus be seen that the inhabitants of the Northern Countries travel extensively in their neighbouring countries, a circumstance which obviously plays an important rôle in promoting unity between the Northern peoples.

At the same time, Northerners are frequent visitors to foreign countries. All in all, it may be computed that the peoples of the

North spend close upon £5,000,000 on travel in non-Northern countries.

*Travel organisations.*

Danish travel interests are in the hands of *The Tourist Association of Denmark*, an institution officially recognised by the Danish Government.

In Finland there are two associations for the promotion of these interests, viz., *The Finnish Tourist Association* dealing with internal travel, and the association *Finland-Travel* doing travel-advertising abroad.

In Iceland all travel interests are under the charge of *The Statourist*, a State Travel Bureau holding a monopoly for the conveyance of foreign tourists in Iceland.

Travel interests in Norway are in the hands of *The National Travel Association of Norway*, which is recognised by the Government as being a joint organ for the State, Municipal, and public and private institutions, associations and enterprises interested in the tourist industry as a source of income. The National Association has for its object the promotion of travel in Norway and particularly of tourist traffic from abroad, both as a separate industry and in support of other industrial activity, and at the same time as a cultural factor.

Sweden has two co-operating organisations for the furtherance of interests under this head, viz., *The Swedish Traffic Association* and *The Swedish Touring Club*. Whereas the latter is concerned solely with the promotion of touring for Swedes in Sweden, the former devotes its attention to traffic from abroad and carries on publicity work in foreign centres.

The Swedish Traffic Association is a semi-State institution, its statutes being fixed by the Government and a substantial portion of its funds being derived from direct or indirect State grants.

A very intimate co-operation in travel interest exists between the Northern Countries through the agency of *The Northern Tourist Traffic Committee*, formed in 1922. At present it comprises three representatives of each of the Northern Countries, (excepting Iceland), appointed by the official travel-advertising organisations of the respective countries.

## CHAPTER XII.

# THE INTERNATIONAL BALANCE.

*Introduction.*

The international balance of a country is usually illustrated in two ways, either by calculating its balance of payments during a certain period (Balance of Payments) or by reckoning its foreign liabilities and assets at a certain date (Balance of Indebtedness). If such calculations are available for a number of years, it is possible to obtain a fairly reliable idea of the international balance of a country and of the manner in which it tends to develop. It must not be forgotten, however, that neither the balance of payments nor the balance of indebtedness is quite exact or exhaustive, but that in many important points they are based on more or less summary estimates. This is especially the case during a period in which the value of the currency and the level of prices have experienced considerable changes. For this reason a comparison between the international balances of the Northern Countries can also not be exact in details. The information, gleaned principally from »Balances of Payments» published by the League of Nations, is collected according to different methods, the materials are not uniform, and the estimates are seldom commensurate in all points. Nevertheless, it can scarcely be open to doubt that the results, especially as regards the most important figures, provide a correct idea, on the whole, of the similarities and dissimilarities in the international balances of the different Northern Countries. As the catastrophe of 1931 in the foreign exchanges renders a comparison with the figures for former years uncertain, the following survey deals mainly with the subsequent period, i.e., 1932—1935.

The balance of payments is made up of two parts, the movements of capital consisting of imports and exports of capital, and the balance of payments in the narrower sense of the term or the exchange balance consisting of the income and expenditure in goods and services. The two parts of the balance of payments must always balance each other, i.e., if the exchange balance is positive and records a surplus of income, the net result of the movements of capital must record an equal surplus export of capital, while a negative exchange balance, the expenditure in which exceeds the income, must correspond to an equal net import of capital. When this is not so in practice, it is due to want of exactness in the particulars.

## BALANCE OF EXCHANGE.

*Foreign trade.*

The most important factor in the balance of exchange is the balance of trade. In the case of Norway the sale of whale oil from whaling grounds has been added to the exports; with regard to the other countries, too, the figures in the official trade statistics have in some cases been slightly adjusted (*Table 31*).

During the boom at the end of the 1920's all the Northern Countries, though with the partial exception of Iceland, mostly had a negative balance of trade. At the same time both exports and imports reached record figures. When the depression set in, exports as well as imports fell off very much. However, their relationship to each other displayed different tendencies in the various countries. In Finland imports decreased appreciably more than exports, the volume of which was more or less maintained, though their value was reduced. The surplus of imports was converted into a surplus of exports already in 1930 and in the following years, when exports again began to grow, the surplus of exports amounted to comparatively large sums. The peak was attained in 1934, but since then imports have once more increased to a larger extent than exports. In Denmark, Norway and Sweden the course of development was at first in the opposite direction, the surplus of imports increasing, but this was only the first phase. In 1932 the balance of trade improved very much in

Norway, Denmark and Iceland, and the second half of the year brought a similar change in Sweden. In the following year the balance of trade improved still further in Norway and Sweden, but in Denmark there was again a setback. In Norway a corresponding change for the worse occurred in 1934, but in Sweden not until 1935. In general it may be said that the improvement in the trade cycle in all the Northern Countries was accompanied by a tendency for the balance of trade to deteriorate.

During the whole period from 1932 to 1935 the balance of trade in Norway was markedly negative, the deficit varying between £ 5,269,000 and £ 10,854,000, thus constituting a considerable item of expenditure in the balance of payments. However, there was a levelling factor to some extent in the item »Whale oil sold from herding grounds», which is not included in the trade statistics, but can in reality be looked upon as an export. In this item Norway had in the years 1933—1935 an income of about £ 1,900,000. In Sweden and Denmark the balance of trade was slightly less negative, but the deficit was still considerable, varying in Sweden between £ 206,000 and £ 10,784,000 and in Denmark between £ 268,000 and £ 5,357,000. The position in Iceland and Finland was very different, their balance of payments receiving an important item of income from the balance of trade, in Finland varying from £ 4,039,000 to £ 6,436,000.

*Interest and dividends.*

An important item in the balance of payments consists of the income from or the expenditure on interest and other yield from capital. In this respect there is a distinct difference between Sweden on the one hand and the other Northern Countries on the other. Sweden has of late had a considerably larger income than expenditure under this head as a rule and this surplus has gradually risen and has amounted during the last few years to about £ 4 million annually. The only exception was 1931, when an appreciable part of the income from interest was not received on account of the international crisis; in the following year, however, it was doubled. The pronounced drop in rates of interest during the last few years has not occasioned any reduction worth mentioning in the income from interest, for so far the conversion of bond loans has not played any noticeable part. On the other

hand the expenditure on interest has displayed a falling tendency since 1931, partly owing to the decreasing amount of indebtedness and partly to the falling rates of interest.

Denmark represented the opposite extreme, her net expenditure on interest and dividends having risen, viz., from £ 3,970,000 in 1932 to £ 4,241,000 in 1934 and 1935. This is the result of a twofold tendency: income from interest has fallen off, while expenditure on interest has increased.

Norway and Finland occupy an intermediate position. In Norway the net expenditure on interest has dropped slightly from £ 4,419,000 in 1932 to £ 3,518,000 in 1935. In Finland the net expenditure on interest had a rising tendency up to 1932, the depreciation of the currency playing an important part, but subsequently this net expenditure fell off again, viz., from £ 2,574,000 in 1932 to £ 1,696,000 in 1935 for the same reasons as in Sweden.

Finally, in regard to Iceland it can only be stated that this item in the balance of payments appears as a net expenditure estimated at approximately £ 200,000—250,000.

*Other Services:* Shipping.

Among the remaining items of income and expenditure in the balance of exchange the principal place is undoubtedly occupied by shipping. As all inward freights, whether paid to national or foreign ships, figure on the expenditure side of the balance of trade, we must here reckon with the whole income in freight earned by the country's merchant fleet, when carrying goods from and to other countries. A deduction must, however, be made for the expenditure that merchant vessels incur in foreign ports, if this has not already been deducted in calculating the net income from freight. If we take the net amount of these items, we find that shipping has provided all the Northern Countries, with the exception of Iceland, with a by no means inconsiderable net income, though its importance has varied appreciably. This income was largest in Norway, where it has amounted to £ 9—10 million annually during the last few years. Sweden came second, the net income slightly exceeding £ 6 million. This income was only slightly less in Denmark, where it was over £ 5 million a year. The net income of Finland in this respect

was far more modest, though not unimportant; the annual net income varied on either side of £ 1 1/2 million. As regards Iceland, it is estimated that income and expenditure very nearly balanced each other, with £ 200,000—250,000 on each side. This income displayed a strong rising tendency for Finland. In the other countries, on the contrary, it only displayed a slow recovery from the lowest figures during the crisis. In Denmark and Norway this income attained the same level in 1935 as before the depression, but this was not yet the case in Sweden. With regard to the composition of the income from shipping it should be mentioned further that all the countries derived an income from foreign ships calling at their ports. This net income was insignificant in Finland and Norway, amounted to close on £ 1 million annually in Sweden, but provided a net income of about £ 2 1/2 million for Denmark. The reason for this is, of course, the important part played by Copenhagen's international traffic and the income derived from it.

Tourist expenditure.

Tourist traffic involves both income and expenditure for all countries, but the amounts can only be estimated approximately. For Finland the income and expenditure are estimated at the same amount, about £ 1 million annually, but the tendency seems to have proceeded from a surplus of expenditure to a surplus of income. For Denmark tourist traffic represents a surplus of expenditure. The income from foreigners' journeys in Denmark is estimated to be about £1,100,000 a year, whereas the expenditure on the journeys of Danes abroad is calculated at about £ 1,300,000. Sweden's income and expenditure under this head are both considerably larger, the income in 1935 amounting to close on £ 2,900,000, while the expenditure was calculated at about £ 2,300,000. For Norway the income from tourist traffic is estimated at £ 1,900,000, and although the expenditure is not specified, but is combined with some other items, it is obvious that it must be appreciably less than the income. Norway appears to be the only one of the Northern Countries that has a considerable net income from this item. For Iceland, the income is calculated at £ 100,000—150,000 and the expenditure, at £ 150,000—200,000.

Other items.

Each of the Northern Countries, of course, derives an income from various sources and also incurs a large number of expenses besides those referred to. In the majority of such cases, however, particulars are not available and most of them are not of such importance as to influence the final result of the balance of payments to any extent worth mentioning, especially as the income and expenditure often nearly balance each other. The income that the Northern Countries derive from emigrants' and sailors' remittances is probably the most important. Besides, some of the Northern Countries include in their calculation of the balance of payments such items as income from or expenditure on commissions, insurance, official representation, posts, telegraphs, telephones etc. These can, however, be safely ignored here.

Net amounts.

If we combine all the income and expenditure included under the heading »Other services», there is a considerable net income in the case of each of the Northern Countries, with the exception of Iceland. This item was largest in Norway, where it varied between £ 11.7 and £ 13.4 million. In Sweden this income amounted to £ 8.7 million in 1932, fell off in 1933 and 1934, but then began to rise again. Denmark had a net income under this head of £ 7.6 million in 1932; subsequently there was an increase, this income being calculated at £ 8.8 million in 1935. In regard to Finland the net income from »other services» amounted to about £ 2.8 million in 1932, but has been at a slightly lower level in recent years. Finally, as regards Iceland, we find £ 150,000—200,000 on each side of the balance sheet.

*Gold.*

Imports and exports of gold as a factor in the balance of payments of the Northern Countries are not of any great significance. This is partly due to the fact that gold does not play any predominating part in balancing the balance of payments of these countries, the balance being adjusted by means of the reserves of foreign currency or other items belonging to the movements of capital. Partly it is also due to technical reasons, the particulars regarding the movements of gold mostly including only gold bullion and to some extent gold coin actually imported or exported, while fluctuations in earmarked gold are not clearly accounted for.

The figures, limited in this manner, record a slight net income from the movements of gold in the case of Denmark, but a net expenditure in the case of Finland, Norway and Sweden. During 1932—1935, therefore, the latter countries purchased more gold than they sold abroad, while the former exported more than it imported.

*Total amounts of income and expenditure.*

If we combine all the income on the one hand and all the expenditure on the other in the balance of exchange and take the total of these two items, we obtain an idea of the extent of the international transactions of the different countries. We find then that this amount reached its highest point in Finland in 1928, but only in 1929 in the other Northern Countries. The following years brought about a severe setback; the lowest point was reached in Finland in 1931, in the other countries in 1932. During the subsequent period the total turnover has grown from year to year, but in all the Northern Countries this figure was still appreciably lower in 1935 than before the depression, viz., in Sweden close on £ 199 million, in Denmark about £ 144 million, in Norway about £ 120 million and in Finland over £ 59 million.

*Net balances of exchange.*

In order to obtain an idea of the composition of the balances of exchange of the Northern Countries a table is given below showing a summary of their average net exchange balances for the whole period 1932—1935.

| | Denmark | Finland | Iceland (1930—34) | Norway | Sweden |
|---|---|---|---|---|---|
| | £ 1 000 | £ 1 000 | £ 1 000 | £ 1 000 | £ 1 000 |
| Merchandise ..... | — 2 697 | + 5 376 | — 30 [1]) | — 6 018 | — 5 303 |
| Interest and dividends | — 3 923 | — 2 119 | — 230 | — 3 927 | + 4 693 |
| Other services (shipping, tourist traffic etc.) ..... | + 8 126 | + 2 441 | — 20 | + 12 502 | + 7 982 |
| Gold ..... | + 616 | — 16 | — | — 234 | — 280 |
| Net amount | + 2 122 | + 5 682 | — 280 | + 2 323 | + 7 092 |

This table gives a clear idea of what is characteristic of the exchange balances of the individual countries, as is also distinctly

[1]) Iceland shows for the period 1928—1935 a credit balance amounting to about £ 600 000.

shown in the accompanying diagram. This shows that all the Northern Countries, with the exception of Iceland, have had a positive exchange balance in recent years. Its positive character was, however, much more marked in Finland and Sweden than in Denmark and Norway. Sweden derived her largest income from »other services» and a considerable income from interest and dividends. By means of this income an appreciable surplus of imports could be paid for and yet a considerable amount was left over for fresh investments abroad. Denmark, too, and particularly Norway, derived their principal income from »other services», while on the other hand both foreign trade and interest and dividends caused considerable net expenditure, though there was a surplus left for redeeming foreign debt. The balance of exchange differed in these two countries in so far as Norway had a larger income from »other services» but at the same time an appreciably larger surplus of imports than Denmark. Finland's balance of exchange was composed differently from that of the other Northern Countries, seeing that the largest income was derived from foreign trade. »Other services», indeed, also yielded a by no means inappreciable net income, but this was counterbalanced almost entirely by the net expenditure on interest and dividends. Thanks to the favourable balance of trade, however, considerable sums could be employed for redeeming foreign debt.

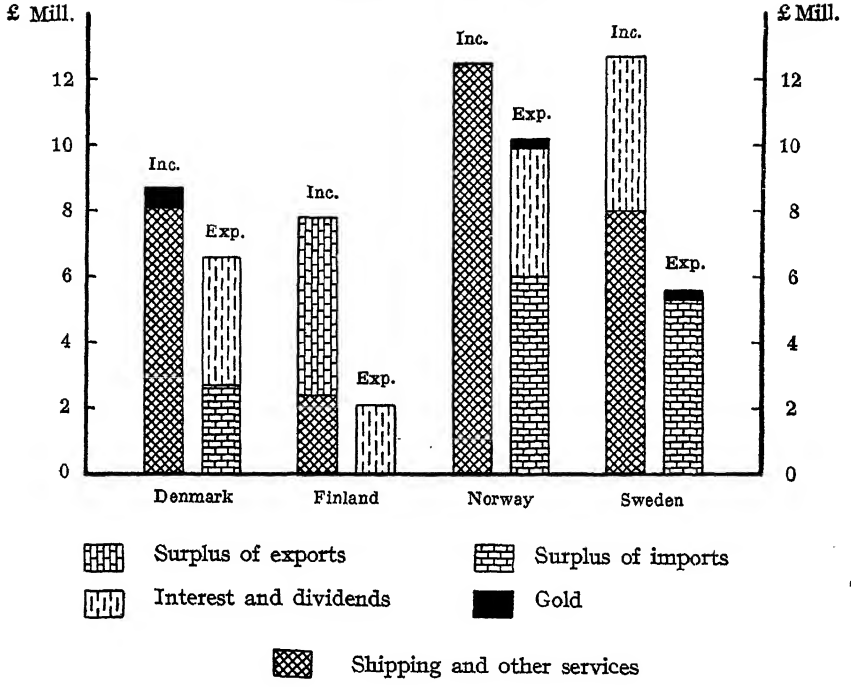
Finally, if we are anxious to study the development of the net result of the exchange balance, we can obtain an idea of it from the *table 32* in the table section and the table below.

| | £ 1 000 | | | |
|---|---|---|---|---|
| | Denmark | Finland | Norway | Sweden |
| 1932 | .... + 4 453 | + 5 197 | + 2 928 | + 5 050 |
| 1933 | .... + 2 161 | + 5 947 | + 4 204 | + 8 885 |
| 1934 | .... — 1 295 | + 6 916 | + 3 869 | + 14 433 |
| 1935 | .... + 3 170 | + 4 669 | — 1 709 [1]) | ± 0 [1]) |

[1]) The result is due to an extra-ordinary import of gold coin and bullion. Exclusive gold the balance is positive as may be seen from the *table 32* in the table section.

*Net Balances of Exchange.*

*Average for 1932—1935.*




It will be seen that the lines of development for the different countries differ appreciably from each other, although there are some similar features.

## MOVEMENTS OF CAPITAL.

*Earlier development.*

During the latter part of the 19th and the beginning of the 20th century all the Northern Countries imported a considerable amount of foreign capital in order to extend their means of communication and their productive mechanism. Foreign capital was employed in industry and agriculture, for building up-to-date towns, constructing railways etc. Foreign capital thus played an important part in the economic expansion that proceeded in

these countries. Borrowing occurred mostly in the form of funded bond loans, the proceeds of which were gradually brought into the country and remained temporarily as short-term balances abroad. At times there was, besides, short-term financial borrowing abroad, to say nothing of the short-term indebtedness or balances that regularly accompany foreign trade. The holding of foreign bonds also occurred, though this was more in the nature of foreign reserves than actual investments.

During the last few decades production and the accumulation of capital have developed to such an extent that the need for resorting to foreign capital has decreased by degrees and it has been possible to repay former foreign loans. Sweden was the first of the Northern Countries to reach this stage. Already about 1910 the accumulation of capital sufficed to cover the home market demand and, moreover, to leave a surplus for export. During the Great War the markedly positive balance of exchange made possible extensive exports of capital, to a large extent in the form of a repatriation of bonds formerly issued abroad. Norway, too, because of her favourable position was able during the war to release herself from her foreign debts and build up large foreign balances. In consequence of the severe post-war crisis, however, a large part of the latter was lost again, and in 1928 Norway had once more an appreciable foreign indebtedness and was thus in approximately the same position as Denmark and Finland.

*Development after 1928.*

If we examine the total figures for the movement of capital during the latest period after the crisis at the end of the 1920's, we can say in the first place that Sweden has continued on her way as a country that exports capital. In every year, with the exception of 1931, exports of capital were larger than imports; during the last four years the surplus of exports of capital has amounted to close on £ 32 million. These exports have in the main taken the shape of an increase in the Central Bank's foreign assets, part of which has, however, been replaced by gold.

The other countries have entered a changing phase on account of the state of the international investment market and the

continued development of opportunities on their own investment markets.

In Finland there were considerable imports of capital in 1928—1929, mostly in the form of short-term borrowing. In the following year some of these short-term debts were converted into bond loans. Nevertheless, on the occurrence of the international confidence crisis Finland's foreign payment position was a difficult one. The crisis caused a general recalling of short-term credits to foreign countries, though this did not become insuperable, as the balance of trade was favourable. Altogether the exports of capital, which then continued voluntarily, amounted in 1932—1935 to over £ 15 million, approximately half of which was in short-term debts. Finland has thus — at any rate temporarily — ceased to be a country that imports capital; for the present, however, it is merely a question of greatly reducing the foreign indebtedness, there not having been any active exports of capital.

Denmark and Norway seem also to have reached a similar turning-point, though the change is not so marked as in Finland. In 1928 Denmark converted part of her short-term foreign debt into long-term indebtedness and has since amortised her foreign debt year by year. The final result for the last four years records surplus exports of long-term capital amounting to over £ $7\,^1/_2$ million and surplus imports of short-term capital for £ $^1/_2$ million, i.e., there have been net exports of fully £ 7 million.

In the case of Norway imports of capital exceeded exports of capital during 1928—1931, but then a change set in, resulting in surplus exports of capital amounting to £ 10.9 million, the whole of this amount consisting of the repayment of short-term and other business credits.

The particulars of the movement of capital do not correspond exactly to the final figures in the exchange balance, there being some divergence between them. This divergence obviously covers adjustments of the figures of both the movement of capital as well as of the exchange balance, though it is impossible to decide with certainty which particulars require more correction. It is important, however, to establish that the final results for the

period 1932—1935, calculated according to the figures for the movement of capital, indicate the same tendency on the whole as the final figures for the exchange balance, i.e., a considerable improvement in the foreign payment position of Finland and Sweden and a rather slighter improvement in the case of Denmark and Norway. The figures dealt with do not, however, answer the question whether these phenomena indicate, on the part of Denmark, Finland and Norway, a definite change in the foreign payment position, like that which has already taken place in Sweden, or whether it is only a case of a passing phase.

## BALANCE OF INDEBTEDNESS.

In passing from the movements of capital to the actual assets and liabilities we must distinguish between long-term and short-term assets and liabilities. The following table gives a survey of recent changes in the balance of indebtedness of Denmark, Finland, Iceland and Norway. The amounts are calculated at the rates of exchange current at the different dates.

*Funded and floating liabilities and assets.*

| | Denmark | | Finland | | Iceland | | Norway | |
|---|---|---|---|---|---|---|---|---|
| | £ 1000 | | | | | | | |
| Liabilities | 1931 | 1935 | 1931 | 1935 | 1928 | 1935 | 1931 | 1935 |
| Long-term [1]) | 93 134 | 81 518 | 45 936 | 22 317 | 2 313 | 3 169 | 79 093 | 79 246 |
| Short-term [2]) | 23 754 | 18 348 | 13 918 | 7 137 | 881 | 1 518 | 46 349 | 32 714 |
| Total | 116 888 | 99 866 | 59 854 | 29 454 | 3 194 | 4 687 | 125 442 | 111 960 |
| Assets | | | | | | | | |
| Long-term . | 14 120 | 15 179 | — | — | — | — | 10 288 | 9 447 |
| Short-term [2]) | 22 425 | 15 312 | 6 959 | 11 013 | 826 | 223 | 19 137 | 20 402 |
| Total | 36 545 | 30 491 | 6 959 | 11 013 | 826 | 223 | 29 425 | 29 849 |
| Net liabilities | 80 343 | 69 375 | 52 895 | 18 441 | 2 368 | 4 464 | 96 017 | 82 111 |

These figures differ considerably from the figures for the net result of the movements of capital. This is owing partly to the incompleteness of the particulars and partly to the change that

[1]) Bonds and shares, held abroad, and real estate owned by foreigners.
[2]) For Norway including mortgage bonds.

has occurred, owing to the depreciation of the currencies, in regard to the assets and liabilities that are expressed in foreign currency.

According to the above table Denmark's foreign liabilities have decreased during the last few years by about £ 17 million, but as the foreign assets have also fallen off, the reduction of the net foreign indebtedness is less, for the latter has dropped from £ 80.8 to £ 69.4 million or about 14 per cent. Norway's foreign indebtedness also fell off during this period, viz., by £ 13.5 million. As the foreign assets increased slightly, the net indebtedness was reduced from £ 96.0 to £ 82.1 million or also about 14 per cent. Finland's foreign indebtedness decreased considerably more, partly owing to the devaluation of the dollar and partly to sinking fund payments and the repatriation of bonds. As the liabilities were reduced by £ 30.4 million and the assets increased by £ 4.1 million, the net foreign indebtedness fell off from £ 52.9 to £ 18.4 million or by no less than 65 per cent. Iceland's foreign debt increased and her foreign assets decreased during the period 1928—1935, with the result that her net foreign indebtedness increased from £ 2.4 million to £ 4.5 million.

Finally as regards Sweden, the information regarding the foreign liabilities and assets is far from complete. At the end of 1928 it was calculated that Swedish bonds to a value of £ 22.8 million, of which £ 16.8 million were State bonds, were in foreign hands. By the end of 1935 it was calculated that the latter amount had been reduced to £ 10.9 million. According to an investigation Swedish capital had been invested in 847 foreign bond loans at the end of 1933. The value of the outstanding bonds at current rates of exchange amounted to £ 742 million. In addition the Swedish banks had considerable foreign assets. The net amount of these, including foreign bills, had increased from £ 17.5 million by the end of 1930 to £ 34.8 million by the end of 1935.

It would be very interesting to examine how the foreign liabilities and assets of the Northern Countries are composed. As, however, the particulars are incomplete, we must content ourselves with a few details.

*Funded liabilities according to borrower.*

If the foreign long-term liabilities are divided according to the borrowers, the following figures are obtained for the end of 1935:

| | Denmark | Finland | Iceland | Norway |
|---|---|---|---|---|
| | | £ 1000 | | |
| State bonds | 37 679 | 9 951 | 1 875 | 36 784 |
| Municipal debt | 20 223 | 3 313 | 491 | 9 296 |
| Mortgage-bank & other bank bonds | 7 768 | 8 410 | 312 | 9 900 |
| Other securities | 15 848 | 643 | 491 | 19 698 |
| Real estate owned by foreigners | — | — | — | 3 568 |
| Total | 81 518 | 22 317 | 3 169 | 79 246 |

CHAPTER XIII.

# THE COMMERCIAL POLICY OF THE NORTHERN COUNTRIES.

*Co-operation during the Great War.*

The community of commercial policy among the Scandinavian countries found a very striking and very real expression during the latter part of the Great War. When the shortage of goods became acute in 1917 in consequence of the intensification of the war, the Scandinavian countries came to each other's assistance and an organised exchange of commodities was effected in order to lessen the pressure of the shortage. By placing at each other's disposal such goods as they could best dispense with, they rendered each other valuable assistance, which not only diminished their existing difficulties, but at the same time gave rise to that intimate commercial co-operation which later found expression in collaboration in economic and commercial policy. During this period was also laid the foundation of uniformity of policy towards the outside world, insofar as common negotiations were successfully conducted with the Entente powers with relation to certain conditions which threatened to interfere with the Scandinavian interchange of goods.

*Trade policy after the War.*

After the Great War the Northern Countries, with which Finland and Iceland were now associated as sovereign states, followed in many respects the same lines of commercial policy. They opposed the Protectionist movement which arose in the beginning of the 'twenties from the violent competition of countries with depreciated currencies. Their customs tariffs were kept at a moderate level and in some cases treaty con-

cessions to certain countries even led to a lowering of the tariff walls. It is true that there were increases in customs duties later, during the world crisis — especially on luxury articles — but the average level of duties in Denmark, Sweden and Norway was probably lower than in most other countries. In Finland the burden of duties appears, in consequence of a number of revenue duties, to have been somewhat heavier. Another common feature is the solicitous observation of the principle of equality of treatment in customs policy and the exclusion of discriminatory methods or double tariffs.

Associated with this tariff system is a treaty policy, based on the most-favoured-nation principle, which aims mainly at securing in all markets the right to the same treatment as that accorded to any other country. In their trade policy the Northern Countries have also aimed at preserving full autonomy in customs matters. Exceptions have occurred and of recent times especial mention should be made of the trade agreements, with comprehensive tariff schedules, which all the Northern Countries made with England in 1933, and the agreements made by Sweden and Finland with the U.S.A. in 1935.

It is further characteristic of the commercial policy of the Northern Countries that, apart from certain measures for the regulation of the domestic market, and some other less important arrangements, they have as far as possible avoided quotas and other quantitative import restrictions — with the exception of Iceland, of which more later — as also that all of them even in this respect have stuck to the application of the most-favoured-nation principle, which has been so strongly attacked in some quarters.

As a natural corollary of this principle, we find that there are no exchange restrictions in Finland, Norway and Sweden. The establishment of the exchange control in Denmark must be seen against the background of the great difficulties experienced — when the world crisis set in — by her agricultural interests, upon which the economy of the country is dependent. A wide-spread reduction of purchasing power, together with the introduction of restrictions upon the imports of agricultural produce in some of

her principal markets, caused a heavy fall in the exports of Denmark. This development made it necessary for her, in order to protect the exchange, to adjust imports to reduced exports. One result of this measure has also been that Denmark to a greater extent than previously effects her purchases in such a manner that Danish exports of foodstuffs can be secured to a reasonably satisfactory extent. Iceland has found herself in a similarly difficult position, although in her case the pressure has a different origin. Owing to the structure of the economic life of Iceland her trade with foreign countries is so one-sided that exports, consisting chiefly of fish and fish products, are sold as to more than 50 % to Mediterranean countries, whilst Icelandic imports, which consist predominantly of essential raw materials, machinery and foodstuffs which cannot be produced within the country, are derived to about 75 % from Great Britain and the Scandinavian countries. In the present international position these circumstances have compelled comprehensive import restrictions in order to secure sufficient means of payment and to secure the imports of necessary commodities.

*Difficulties arising from the policy of reciprocity.*

The methods adopted by so many countries during the last world depression to utilize imports as a bargaining medium have in reality very substantially changed the underlying conditions of commercial policy even in the more liberally-minded countries. In the first place the policy of complete reciprocity, as well as the efforts of the states infected thereby to bring about a balance of imports and exports with every other country, made it impossible for the Northern Countries to maintain their passive, or at any rate temperate, commercial policy, the main purpose of which is to secure the most-favoured-nation right. The restrictive systems based on a quantitative regulation of imports give rise to inevitable bilateral negotiations which in their turn presuppose reciprocal action. There then appears a special weakness in those countries which desire to maintain the principle of freedom of trade and to refrain from government intervention in foreign trade, namely the lack of suitable exchange media. It would seem natural that the unrestricted power to import which exists wherever no obstacles have been imposed

should be at least as valuable as a special licence to import limited quantities under a quota system. The interventionist states, however, have only quite exceptionally accepted this view. As a rule the absence of restrictions on the opposite side is regarded as a natural thing, and concrete concessions are expected for any relaxation of their own restrictions. Since the two commercial policies confront one another in this way, there arise serious difficulties for the liberal countries in the accomplishment of their legitimate endeavours to maintain their exports without directly utilizing their imports to promote their sales.

It has already been intimated that the tariffs of the Northern Countries are not designed for the purpose of tariff negotiations (with the possible exception of the Finnish »Star» duties); but even where a bargaining medium is available under a tariff for negotiating a relaxation of the restrictions of another country, it has appeared that customs duties are of little interest, because the other party has not been disposed to appreciate the potential export possibilities which a reduction of duties must usually involve, but has sought concrete undertakings to buy certain quantities of goods or goods to a certain value. Hitherto such claims have been satisfied by some restricted undertakings to increase purchases (especially of monopoly goods, such as wines and spirits), but if this policy is carried too far, it will be difficult to avoid the undesirable regulation of imports.

In this connection we may mention the state regulation of imports of coal which Iceland, Finland and Norway were compelled to introduce for securing those imports of British coal which were a condition of the Trade Agreements entered into by them with Great Britain in 1933. In Sweden a similar regulation has been voluntarily introduced by the industry itself, whilst in Denmark it has been introduced with the help of the existing exchange control. It is thus clear that even countries which have opposed the policy of restriction — as is the case with Great Britain, if one excepts agriculture and fishing — may, by their demand for quantitative engagements with other countries, contribute to the development of the system of quantitative restrictions, though they find the system injurious and repellent.

The restrictions on imports of agricultural produce in force in Norway and Sweden should be regarded as correlative with the domestic regulation of agriculture which was introduced in order to level out the dangerous disparity in prices between agricultural and industrial products. It was the international overproduction of grain which gave rise to this policy of regulation; an immediate adaptation to the revolutionary changes in the world market was simply not possible. The industrial population of the said countries has been willing to pay the price to save the farmers, but it has no illusions concerning the advantages of a general restrictive trade policy.

*Individual versus centralised trade.*

We are probably right in saying that nowadays the issue is not the doctrinaire one of free trade versus protection, but that the line of division lies between those who wish to maintain as far as possible freedom of trade and to allow goods to flow in their natural channels without arbitrary interference, and those who in principle wish to employ a central control of foreign trade as an element of a centrally directed and controlled economy. The latter view necessarily shows a strong tendency towards import restrictions, export subsidies, exchange control and debt clearing. The former view, on the other hand, permits an individual trade between the countries leaving full scope to individual initiative.

Happily it is also possible to record that the free, or perhaps, rather, individual system of trade, has been maintained in many important countries and that efforts are being made to extend its area. The most important work in this direction is that which has found expression in an endeavour to generalise, on the basis of the most-favoured-nation clause, the effects of tariff reductions. In this endeavour the U.S.A. has taken the lead.

The Northern Countries, which are united in their desire to overcome present difficulties in co-operation with other countries, have endeavoured, according to their power, to promote the principles laid down by the League of Nations as a guide to a policy for international trade. The countries of the North have supported these principles on all occasions where there was a possibility of international co-operation. Their contribution to the economic World Conference in Geneva in 1927 will be re-

membered, as also their collaboration in the London World Conference in 1933.

*The Oslo Convention.*

A striking testimony to their endeavour by common means to promote freer trade between themselves and with other countries is given by the Convention entered into by Denmark, Norway, Sweden, Belgium, Luxemburg and Holland at Oslo in 1930 (the so-called Oslo Convention), and subsequently joined by Finland. This agreement does not, it is true, in any way limit the freedom of action of the parties, but it provides for discussion in advance of any proposed increase of customs rates and it guarantees preliminary notification of such measures and thus prevents surprises and affords the parties an opportunity to present their views. Though formally restricted to customs duties the Convention has also in other respects assisted in creating a spirit of common consideration, which in its turn has assisted in removing difficulties and occasions for misunderstanding. It has also in several cases been the point of departure for initiative and proposals for increasing collaboration between the signatory states and removing obstacles to international trade.

At the Hague the countries in question, moreover, in May 1937 entered an Arrangement which means a further step in the direction of promoting their commercial relations. In order to ensure a closer co-operation regular meetings are to be held between delegates from the countries concerned.

*Contacts arising from the negotiations for trade agreements.*

It is obvious that this intimate co-operation between the Northern Countries in respect of commercial policy opens up the possibility of mutual assistance among the signatories in their relations with non-contracting states. Such co-operation can, as happened in the case of the trade agreements of Denmark, Norway and Sweden with England in 1933, operate publicly with the knowledge and consent of the other party, but it may also assume more confidential forms, especially when it is a question of preventing one of the Northern States, all of which are in many respects competitors in the world market, from being played off against another, to the injury of one or all of them.

In this connection the Northern Countries have been enabled

to demonstrate their joint importance as purchasers of the products of other countries. The spread of bilateralism and the intensification of the demand for reciprocity in international trade have created very serious difficulties and great anxiety for the Northern Countries. Since the demand for reciprocity, intensified by the demand for a levelling of the trade balance, is often made by countries with a large area and a numerous and perhaps even heterogeneous population, it is natural that the Northern Countries should have presented a united front and demanded consideration for the importance of their markets taken as a whole.

That this market is of immense importance need not be here reiterated, a considerable part of this volume having been devoted to a demonstration of that fact. It may be sufficient to recall one or two threads in the earlier presentation of the case. The total population of the Northern Countries does not, it is true, exceed 16.5 millions, or 0.8 % of the population of the world. Nevertheless those countries in 1936 accounted for no less than 5 % of world trade, and consequently they occupied the fifth place among the trading countries of the world. An excellent indication of the importance of a country from the point of view of foreign trade is its *per capita* turnover, and in this respect the Northern Countries occupy a foremost position among the leading commercial nations. The world record in this respect is held by Iceland; then comes Denmark, followed by Belgium, and with Norway in the fourth place. Great Britain is fifth, and Sweden is not far behind. Finland is somewhat lower down in the list but in her case also foreign trade is of specially great importance.

*Unification of economic policy.*

On several occasions the statesmen of the North have demonstrated their mutual understanding, their spirit of co-operation and willingness to collaborate. This has been shown at meetings of heads of states, heads of governments and Ministers for Foreign Affairs for the purpose of promoting common measures. Another consequence of this conscious endeavour to achieve co-operation and collaboration is to be found in the Economic Delegations which, after deliberation with the Ministers for Foreign Affairs, were appointed by the Northern Countries, and

»A COUNTRY OF FORESTS AND WATERFALLS» IS AN APT DESIGNATION, IN PARTICULAR OF THE MORE NORTHERLY REGIONS OF SWEDEN.

under whose auspices continuous work has been done in expanding and deepening Northern co-operation in the economic field, and it may be repeated that these same delegations are responsible for the present volume. The same object is served also by smaller government delegations of commercial experts which meet regularly for the discussion of common interests.

The co-operation which we have seen to exist between the governments and between other authorities of the Northern Countries is supplemented by a comprehensive co-operation of an excellent and significant kind, with the blessing and even support of the respective governments, between private interests, industrialists, organisations and associations in varied fields.

Side by side with the more permanent forms of co-operation there exist also looser forms which, whilst continuous in their work, have sprung spontaneously, and without any pressure or propaganda, from a community of interest. For a more detailed

account of both kinds of co-operation the reader is referred to the final chapter of this work, which is entirely devoted to that subject.

*Conclusion.*

In conclusion it may be said that co-operation in the field of trade policy among the Northern Countries is no longer a dream of the future or an ideological Utopia. On the contrary, it is a living reality, of which the value is all the greater because it is a spontaneous growth from common interests. Its future development will constitute a positive factor for the benefit not only of the Northern Countries, but also of other countries. The trading nations of the North realised early the necessity for peaceful co-operation among the nations, and they constantly declared their willingness, according to their power, to contribute to the restoration of an international economic intercourse free from all arbitrary obstacles. They are convinced that the prosperity of each individual nation can in the long run only be founded upon the confident co-operation of all the nations and they see in the principle of equality of treatment an indispensable means of promoting the world's economic progress, an irreplaceable condition of the material betterment of the world, for the maintenance of peace and the development of civilisation. In striving towards this goal they are firmly resolved by their combined efforts to protect their own interests and at the same time to co-operate loyally in the restoration and consolidation of international economic relations.

CHAPTER XIV.

# ECONOMIC CO-OPERATION BETWEEN THE NORTHERN COUNTRIES.

*The ancient roots of economic intercourse.*

Economic intercourse between the five countries of Northern Europe has existed, as already mentioned in the first chapter, since time immemorial. The ties thus binding together the economic life of these countries have, as a rule, century by century grown stronger and more numerous. There have been, indeed, intervals of less close contact, or even, at some periods, interruptions caused by wars and similar events. But each time the following generations made good the damage wrought and economic intercourse was restored on traditional lines.

With the exception of Finland, the Northern Countries were not directly involved in the last European war. In many ways, however, the war affected these countries too. The regular economic intercourse between them was naturally hampered, or temporarily directed into new channels. This led, for instance, to the dissolution of the *Scandinavian Monetary Union*, which had been formed already in 1873 between Denmark-Iceland, Norway, and Sweden. The main effect of the agreement had been that the coins of any one of these countries were legal tender in any of the others.

On the other hand the difficulties experienced in maintaining during the war the usual imports of raw materials from overseas countries, and of coal and finished articles from European producers, led to a closer contact in the field of economic life. In this way the war made the Northern Countries realise more

intensely than ever before their common cultural and economic interests, and since then this feeling has grown in vigour and has led to most intimate co-operation, not only between the Governments concerned, but also between trade associations and different economic societies.

*Organisations for economic co-operation.*

This spontaneous spirit of co-operation has been further stimulated by inter-Northern organisations actively working for that end. Mention should especially be made of the *Norden* Societies, formed as early as 1919 in Denmark, Norway, and Sweden, and later also in Iceland and Finland. The aim of these Societies is, according to their common rules, »to deepen the feeling of relationship between the Northern Countries, to extend their cultural and economic connections and to promote co-operation between them». Further, the Societies shall »help to find common solutions of cultural and economic problems, where co-operation is possible, with due regard to the special interests of each country».

Though the activities of the *Norden* Societies have been mainly confined to the cultural sphere in general, they have in many ways also promoted economic co-operation between the Northern Countries. It was thus on their initiative, in the first place, that the present *Delegations for the Promotion of Economic Co-operation between the Northern Countries* were, in 1934, simultaneously created by the different Governments. These Delegations have remained in close contact and co-operation with their Governments and have met once or twice a year in order to find solutions for common economic problems. A great number of questions of principle and practical points have already been dealt with in this way, and in many cases proposed further measures have been submitted for the approval of the authorities concerned.

## CO-OPERATION IN THE LEGISLATIVE SPHERE.

*Early development.*

In examining more closely the different ways in which economic co-operation between the Northern Countries has taken practical shape during recent years we shall begin with the

legislative sphere, for here lies the basis of the organisation of society which is so similar in the Northern Countries. In all these countries legislation derives mainly from the same sources, and the long periods during which two or more of these countries have been politically united have also had a unifying influence upon legal conditions.

This development entered upon a new era during the second half of last century, when certain similar laws were passed in Sweden, Norway, and Denmark, including Iceland; e.g. laws for the protection of trade-marks, trade registers, firms and procuration, legal and judicial acts affecting property, as well as those relating to the sea, cheques, and bills. During the first two decades of the 20th century similar proposals with regard to trade and the interchange of goods, to trade on the instalment system, as well as to commercial travellers and agents, became law in these countries.

Finland also, whose long political union with Sweden was severed in 1809, continued during the subsequent years to build further upon the old foundations, and followed closely the legislative development in the neighbouring countries. After Finland became an independent republic in 1917 many laws were introduced in conformity with those which were in force in the other Northern Countries.

*After the World War.*

Among the most important of the parallel laws which have been passed since the World War may first be mentioned that of insurance agreements, certain laws concerning rights at sea and in the air, and marriage laws. It has also been possible to introduce new and similar laws concerning commercial firms as well as cheques and bills. Further co-operation between these countries has prepared corresponding legislation for joint-stock companies, chiefly for the protection of minorities, the management of companies, auditing, relations between main and subsidiary companies, promissory notes, bonds, etc.; in many cases this co-operation has already resulted in legislation in some or all of the countries.

A convention concerning the recognition and execution of legal judgements was signed between the Northern Countries in 1932, and the following year a similar agreement was reached

regarding civil law enactments for bankruptcy. These conventions are of special importance, as according to them a valid judgement of the court, which has been given in one of the signatory states in a civil or criminal action or in an award of damages or touches the invalidity of an action or repeal on the ground of bankruptcy, is also valid in the other countries.

*Meetings of legal and administrative officials.*

In treating the question of co-operation in legislation and legal relations the importance must be noted of the meetings of the representatives concerned. Thus the *Meetings of Northern Jurists* have been held since the 1870's. Their importance is clear from the fact that the active co-operation in the legal sphere began after these meetings started. Of similar character are the congresses now held every third year by the *Northern Societies for the Legal Protection of Industry*, as well as the meetings of *The Northern Administration Association*, held regularly since 1917, the object of which is to keep the officials of the member states informed of the administrative relations in the other member states and in this way to have a consolidating effect on the administrative legislation and the activities of the Governments. By creating *The Northern Inter-Parliamentary Union* a common platform, so to speak, has been formed for discussions between the legislative bodies. This association has also proved an effective instrument in the development of a feeling of community of interest in the Northern Countries.

## CO-OPERATION BETWEEN AUTHORITIES IN OTHER FIELDS.

Between the Governments and administrative authorities of these countries there is, even in other than purely juridical or administrative spheres, a continuous co-operation which is probably more active than in any other similar group of states. It takes different forms, from meetings of Premiers and Ministers for Foreign Affairs to direct correspondence and contact between authorities, and is expressed in different ways, from formal treaties between the respective Governments and agreements between higher and lower authorities to mere exchange of information and opinion.

*Trade policy.* Co-operation in trade policy has been treated in greater detail in the previous chapter. Here it may be mentioned that the idea of a Scandinavian customs union arose as early as the middle of the 19th century. Its possibilities were discussed with great keenness during the following decades but led to little practical result, in spite of the great similarity which existed between the customs duties of the countries. There is no doubt that for the post-war period the *Oslo Convention*, entered into 1930 by Sweden, Denmark, Norway, Holland, Belgium, and Luxemburg, and somewhat later joined by Finland, signifies the most remarkable result of trade policy co-operation. This Convention stipulates as a general rule that new or higher import duties cannot be imposed by one of the parties until the others have had opportunity to examine the effects of such alterations and if need be, to suggest a modification of the proposed duties.

*Shipping.* Besides trade policy, many other questions of greater or less importance have been treated, either by direct agreements or through contact between the authorities in the North. Thus between the five Northern Countries agreements have been entered into relating to seaworthiness and equipment of vessels, according to which these countries recognise each others' regulations in respect thereof. In addition they have agreed to a common recognition of a vessel's certificate of measurement. It may also be mentioned that the chiefs of the Northern cartographic institutes have met at nautical conferences, at which the achievement of uniformity in the technical execution of charts has been one item on the programme.

*Customs Authorities.* Co-operation between the Customs Authorities in the Northern Countries is very close, chiefly owing to united efforts to combat smuggling. The co-operation of the Customs Authorities has led the Governments and other authorities to regulate connections across the frontiers. The results are to be seen in agreements concerning frontier traffic, salmon fishing, the floating of timber and the water rights in frontier rivers.

*Post, telephone.* As regards Post Office Administration, the inter-Northern conventions are the result of numerous conferences on postal, telegraph and telephone communications, in which represen-

tatives of the air traffic companies have also taken part. It is of special importance that the inland postage rate applies to the whole of the Northern area; low inter-Northern rates are also in force for telegraphic and telephonic communication.

*Railways.*

The Railway Authorities in all the Northern Countries have been active in collaboration. Here must first be mentioned the promotion of inter-Northern passenger and luggage traffic as well as goods traffic by means of special inter-state traffic agreements, lowered rates, etc. This co-operation has strong support in the *Northern Railway Officials' Society*, whose object is the further development administratively and technically of the Northern railways. The Society also endeavours to establish contact between the railway staffs in order to stimulate and increase the solidarity of this body of specialists.

*Social welfare policy.*

In the sphere of social welfare policy there is a highly developed co-operation. Representatives of the Ministries for Social Affairs in the Northern Countries have regularly met in conference since 1919, and have discussed questions of social legislation and administration of common interest. In 1928 the representatives of Sweden, Finland, Denmark and Norway made an agreement with regard to the treatment of the poor, according to which each country grants poor relief to the citizens of the other countries in the same way as to their own citizens and receives compensation for this expenditure from the country of origin of the person receiving such poor relief. In some other special spheres of social policy co-operation has also been established, and at several meetings the question of a simplification and unification of the Northern social-statistics, especially in respect of wages, housing, and accidents has been thoroughly discussed.

*Conferences of statisticians and economists.*

In this connection it may be mentioned that during recent years much work has been laid down in developing general statistics on uniform lines. This has been done especially through regular conferences of the heads of the different central statistical offices. The *Northern Statisticians' Conferences*, held about once every three years, have also worked for the same purpose.

The economists of the Northern Countries have also, since the World War, regularly gathered together at the *Northern Economic Conferences* for lectures and discussions. These meetings are a continuation of the inter-Scandinavian Economic Congresses held since the 1860's.

## CO-OPERATION BETWEEN REPRESENTATIVES OF PROFESSIONS AND VOCATIONS.

We have now passed from co-operation between official authorities to contact between organisations representing independent economic life. It is impossible to survey the whole of this field of co-operation, because practically all interests and occupations of any importance are represented in it.

*Employers and employees.*

Thus we find that Northern employers as well as Northern employees have developed close connections. The intimate relations of the Employers' Associations go back to the pre-war period. Now every second year there are held *Inter-Northern Conferences of Employers*. A special permanent committee has been appointed which also meets between the general meetings, and a common office has been established in Brussels to watch the interests of the Northern employers in international social policy. Co-operation between the Northern employers in certain special spheres has also been organised.

Among the *Workers Unions* in Denmark, Norway, and Sweden, there has always been close co-operation in all questions of common interest. During recent years Finland's and Iceland's workers' organisations have begun to participate. This co-operation has proceeded on two lines; general co-operation between the central organisations of trade unions to watch the interests of the organised workers, and co-operation between the trade unions in the different industries and vocations. No regular meetings are held, but when any questions become urgent, representatives of the different countries are called together.

*Trade and commerce.*

In the sphere of trade, co-operation between the Northern Countries has been chiefly supported by the Chambers of Com-

merce. It is they who have arranged the *Northern Trade Conferences* which have been held under different names since 1904. Their purpose has generally been the discussion of such commercial questions as were thought to affect business interests in all the participating countries.

Besides these meetings there is also co-operation, in a more or less organised form, between the most important branches of business. There exist, for example, *The Northern Wholesalers' Associations' Central Council* and *The Northern Ironmongers' Associations' Permanent Committee,* to mention only a couple of prominent instances. But most active and intimate has been, perhaps, the intercourse between the co-operative central organisations of the Northern Countries. A common buying centre, *The Northern Co-operative Union,* has been set up and a common industrial undertaking for the manufacture of electric bulbs.

*Transport and communications.*

It has already been stated that there exists intimate co-operation between the Northern postal and railway administrations. As to shipping, co-operation was firmly established as early as 1907, when *The Baltic and White Sea Conference* was formed with the object of watching the interests of shipping companies. This association, now called *The Baltic and International Maritime Conference,* includes also shipowners belonging to other countries, but those of the Northern Countries form the majority. Of other co-operating organisations in this sphere should be mentioned here *The Northern Ships Officers' Congress, The Northern Forwarding Agents' Union* and *The Permanent Committee of the Northern Automobile- and Motor Cycle Organisations.*

*Tourist traffic.*

While considering this section of our subject it seems appropriate to say a few words about tourist traffic. *The Northern Tourist Traffic Committee* is the body which in different ways watches the interests of traffic arrangements, Tourist Societies, Travel Bureaux and Hotel Owners. In passing, it should be remembered that the need for passports between the Northern Countries was removed in 1929 and in their place Northern travel tickets were introduced, as being simpler and more easily procured.

*Banking.* Passing over to the consideration of co-operation in the financial sphere, it is natural to start with the Central Banks, even though they only partly belong to independent business life. As has already been shown, the Scandinavian Monetary Union fell a victim to the effects of the World War. Since then no new monetary union has been formed, but instead the Central Banks have established very close contact among themselves. Since all the Northern Countries left the gold standard in 1931 and joined the sterling block, this co-operation has been further intensified. Thus meetings of the Governors of the Northern Central Banks now take place regularly.

The Northern Commercial Banks and the different Banking Societies, as is quite natural, maintain intimate connections. This involves constant and active interchange of experience in banking technique. Banking legislation has also been the subject of discussion between them. The Savings Banks formed, in 1931, a special organisation *The Northern Central Savings Bank Associations' Delegation* which usually meets once a year and issues its own journal. There is also organised co-operation between Mortgage Banks and between the Bank Inspection Offices.

*Insurance.* In the Insurance World co-operation has been very active. There are regularly held common congresses in the sphere of life, fire, accident and social-legislative insurance. Mention should also be made of insurance periodicals with common Northern editorial committees.

*Industry.* Co-operation in the industrial sphere has partly taken the form of informative and consultative action, though the promotion of common business interests has been even more important. An example of the first class is the close contact which has grown up between the *National Industrial Associations*, and within the same group also the *Northern Craftsmen's Conference* which is held every third year. An example of the second class is the co-operation organised between different industrial concerns, partly by the exchange of patents and licences, partly by the maintenance of a common price policy and other similar measures.

Yet it is undeniable that the closest and most profitable co-operation in the industrial sphere is that which has arisen

between the Northern woodworking industries. It may therefore be of interest to give a somewhat more detailed account of this very extensive work.

*Woodworking industries.*

Within the sawmill industries there was as early as the turn of the century close and intimate co-operation between the Finnish and Swedish organisations, and for some years past it has been extended to include Norway. Northern co-operation was also of special importance when, in 1935, the European convention for sawn goods, *The European Timber Exporters' Convention* (E.T.E.C.), was formed, by means of which the sale of these goods was regulated.

Close contact has likewise long existed between the cellulose and mechanical pulp industries. The European sulphite cartel *Sulphite Pulp Suppliers* (S.P.S.), which has been at work for some years, partly to regulate sales, partly to regulate prices is not exclusively Northern, yet the Northern Countries may be said to form its nucleus. In 1935 a similar association was formed in the North for woodpulp, chiefly to regulate sales — *Mechanical Pulp Suppliers* (M.P.S.).

As regards the paper industries proper, Sweden's, Norway's, and Finland's organisations and individual factories have had close contact ever since the period immediately after the World War. In addition cartels have been formed in other fields. The oldest of these, the so-called *Cap Convention*, with its headquarters in Oslo, exists chiefly for the common quotation of the prices of »Cap Paper», although its regulations include the possibility of regulating sales, division of markets, and the like. The Northern union of kraft paper manufacturers, *Scankraft*, formed in 1932, with its headquarters in Stockholm, has successfully regulated sales and the quoting of prices in a way that has stabilised the market. Along the same lines, in the autumn of 1935, was formed the Northern association *Scangreaseproof*, for grease-proof paper. Its headquarters are in Stockholm. It takes the place of a similar organisation for this kind of paper which was dissolved in 1931. Finally there is for newsprint, the most important export of the Northern paper industry, a somewhat differently organised but still quite close contact between

newsprint mills in the Northern Countries. Also in the sulphite paper trade co-operation has recently started.

*Agriculture.* Agriculture was perhaps the last of the important industries to enter upon regular co-operation. In recent years it has, however, been very active. This co-operation has been of a scientific as well as of a practical character. In respect of the former, *The Northern Agricultural Research Society*, which publishes a journal, occupies a prominent position. Besides this the cereal research workers of the Northern Countries have founded the *Northern Cereal Technicians' Association.*

Some years ago the representatives of the different agricultural producers' groups in the North worked out a programme of co-operation in practical questions of common interest. As their activity has followed the lines then laid down, it may be worth while to give some details of this programme as an example of the range and importance of Northern co-operation in practice.

The programme aims at co-operation:

a) By collective action when important and vital interests require.

b) By preparatory discussion in a common committee of questions from different spheres of interest which are of importance for Northern co-operation.

c) By the holding of, or participation in, congresses at which current agricultural and forestry questions are treated.

d) By the exchange of lecturers.

*Forestry.* Questions concerning forestry, as will be seen from the above programme, are discussed by the agrarian organisations; but besides this there have been in existence since 1925 special Northern Forestry Congresses. There exists since 1935 also a direct contact between the organisations of forest owners in Finland, Norway and Sweden.

## CONCLUSION.

The economic co-operation between the Northern Countries is like a diamond with a thousand facets; and if, of this thousand, only a hundred are revealed, the picture is over-simplified. This

simile can be applied to the presentation here made of economic co-operation in the North, for besides the cases mentioned, relations are maintained between the peoples of the North in nearly every department of economic life. And this co-operation finds expression in the most varied forms.

*The extent and limits of economic co-operation.*

Nevertheless, Northern co-operation in the economic sphere has, of course, its natural limits. These are due to the fact that these countries, even if they have considerable uniformity of structure and common economic interests, yet each of them is an independent country in itself and they do not together form a single economic unit. There is no free circulation among them either of goods or of labour, and each is an independent unit as regards its policy of capital and currency. Each country has its own industries and trades. A movement towards fixed, organised co-operation is therefore possible and useful in practice only in so far as they have interests and advantages in common.

Yet even if there are limits to this co-operation, this rapid review must have shown the breadth and depth of the community of interests and contacts between the Northern Countries. Further it must have revealed certain characteristics of this co-operation taken as a whole. In the first place it has appeared that co-operation has developed spontaneously, not as the result of governmental pressure or conscious inter-Northern propaganda. Secondly it is a striking fact that this co-operation is not only occasional, but is in general, even when it has not acquired a permanent organisation, continuous. Last but not least, and this fact may be emphasised, this co-operation affects not only the periphery of economic life, but also many of its central and most vital points.

*Spontaneous, continuous and vital character of co-operation.*

And along these lines development will continue.

# TABLE SECTION

*NOTE.*

*The sign »—» indicates that the figure is nil or negligible, »·» that the figures are wanting.*
*»Tons» indicate metric ton.*

*Table 1.*

*Distribution of Agricultural Holdings according to Size of Cultivated Area.*

| Country | Year | Less than 10 ha | 10—50 ha | 50—100 ha | 100 ha and above | Total |
|---|---|---|---|---|---|---|
| | | Number of holdings | | | | |
| Denmark ..... | 1933 | 106 000 | 92 000 | 5 000 | 2 000 | 205 000 |
| Finland ..... | 1929 | 217 797 | 63 902 | 2 864 | 827 | 285 390 |
| Iceland ..... | 1930 | . | . | . | . | 6 700 |
| Norway ..... | 1929 | 277 430 | 20 606 | 292 | 32 | 298 360 |
| Sweden ..... | 1932 | 333 601 | 87 521 | 5 100 | 2 395 | 428 617 |
| Total | | 934 828 | 264 029 | 13 256 | 5 254 | 1 224 067 |
| | | Percentage | | | | |
| Denmark ..... | 1933 | 51.7 | 44.9 | 2.4 | 1.0 | 100.0 |
| Finland ..... | 1929 | 76.3 | 22.4 | 1.0 | 0.3 | 100.0 |
| Iceland ..... | 1930 | . | . | . | . | 100.0 |
| Norway ..... | 1929 | 93.0 | 6.9 | 0.1 | | 100.0 |
| Sweden ..... | 1932 | 77.3 | 20.4 | 1.2 | 0.6 | 100.0 |
| Total | | 76.3 | 21.7 | 1.1 | 0.4 | 100.0 |

*Table 2.*

*Distribution of Agricultural Area according to Size of Holdings.*

| Country | Year | Less than 10 ha | 10—50 ha | 50—100 ha | 100 ha and above | Total |
|---|---|---|---|---|---|---|
| | | Area in 1 000 ha | | | | |
| Denmark ..... | 1933 | 524 | 2 008 | 339 | 305 | 3 176 |
| Finland ..... | 1929 | 747 | 1 167 | 187 | 137 | 2 238 |
| Iceland ..... | 1930 | . | . | . | . | 40 |
| Norway ..... | 1929 | 619 | 354 | 19 | 4 | 996 |
| Sweden ..... | 1932 | 1 286 | 1 695 | 349 | 395 | 3 725 |
| Total | | 3 176 | 5 224 | 894 | 841 | 10 175 |
| | | Percentage | | | | |
| Denmark ..... | 1933 | 16.5 | 63.2 | 10.7 | 9.6 | 100.0 |
| Finland ..... | 1929 | 33.4 | 52.1 | 8.4 | 6.1 | 100.0 |
| Iceland ..... | 1930 | . | . | . | . | 100.0 |
| Norway ..... | 1929 | 62.2 | 35.5 | 1.9 | 0.4 | 100.0 |
| Sweden ..... | 1932 | 34.5 | 45.5 | 9.4 | 10.6 | 100.0 |
| Total | | 31.3 | 51.6 | 8.8 | 8.3 | 100.0 |

*Table 3.*

## *Utilization of Arable Land in 1935.*

| Country | Cereals | Fodder roots, Sugar-beet, Potatoes | Green crops and Grass-fields in the rotation | Seed- and other crops | Fallow | Total area in crop rotation |
|---|---|---|---|---|---|---|
| | Area in 1 000 ha | | | | | |
| Denmark | 1 356 | 522 | 739 | 49 | 39 | 2 705 |
| Finland | 943 | 110 | 1 259 | 51 | 152 | 2 515 |
| Iceland | — | 1 | 32 | — | — | 33 |
| Norway | 185 | 69 | 551 | 14 | 5 | 824 |
| Sweden | 1 554 | 255 | 1 671 | 10 | 241 | 3 731 |
| Total | 4 038 | 957 | 4 252 | 124 | 437 | 9 808 |

*Table 4.*

## *Distribution of Area Devoted to Grain in 1935.*

| Country | Wheat | Rye | Barley | Oats | Mixed[1] corn etc. | Total cereals |
|---|---|---|---|---|---|---|
| | Area in 1 000 ha | | | | | |
| Denmark | 128 | 160 | 350 | 374 | 344 | 1 356 |
| Finland | 71 | 242 | 127 | 471 | 32 | 943 |
| Iceland | — | — | — | — | — | — |
| Norway | 24 | 6 | 62 | 87 | 6 | 185 |
| Sweden | 273 | 227 | 105 | 669 | 280 | 1 554 |
| Total | 496 | 635 | 644 | 1 601 | 662 | 4 038 |
| Average 1926—30 | 351 | 673 | 643 | 1 647 | 541 | 3 855 |

[1]) Barley and Oats.

*Table 5.*

## *Distribution of Area Devoted to Root-crops in 1935.*

| Country | Potatoes | Sugar-beet | Fodder roots and other root-crops | Total root-crops |
|---|---|---|---|---|
| | Area in 1 000 ha | | | |
| Denmark | 77 | 51 | 394 | 522 |
| Finland | 83 | 3 | 24 | 110 |
| Iceland | 1 | — | — | 1 |
| Norway | 50 | — | 19 | 69 |
| Sweden | 129 | 51 | 75 | 255 |
| Total | 340 | 105 | 512 | 957 |

*Table 6.*

## *Production of Cereals in 1935.*

| Country | Wheat | Rye | Barley | Oats | Mixed corn etc. | Total cereals |
|---|---|---|---|---|---|---|
| | 1 000 tons | | | | | |
| Denmark | 404 | 288 | 1 123 | 1 058 | 874 | 3 747 |
| Finland | 115 | 349 | 166 | 609 | 46 | 1 285 |
| Iceland | — | — | — | — | — | — |
| Norway | 51 | 12 | 123 | 182 | 10 | 378 |
| Sweden | 643 | 435 | 217 | 1 275 | 613 | 3 183 |
| Total | 1 213 | 1 084 | 1 629 | 3 124 | 1 543 | 8 593 |
| Average 1926—30 | 795 | 1 036 | 1 452 | 2 918 | 1 181 | 7 382 |
| | Tons per ha | | | | | |
| Denmark | 3.16 | 1.80 | 3.21 | 2.83 | 2.55 | 2.76 |
| Finland | 1.63 | 1.45 | 1.30 | 1.29 | 1.44 | 1.36 |
| Iceland | — | — | — | — | — | — |
| Norway | 2.14 | 1.98 | 1.98 | 2.09 | 2.17 | 2.04 |
| Sweden | 2.35 | 1.91 | 2.06 | 1.91 | 2.19 | 2.05 |
| Total | 2.44 | 1.71 | 2.53 | 1.95 | 2.33 | 2.13 |
| Average 1926—30 | 2.27 | 1.54 | 2.26 | 1.77 | 2.18 | 1.92 |

*Table 7.*

## *Production of Root-crops in 1935.*

| Country | Potatoes | Sugar-beet | Fodder roots and other root-crops | Potatoes | Sugar-beet | Fodder roots and other root-crops |
|---|---|---|---|---|---|---|
| | 1 000 tons | | | Tons per ha | | |
| Denmark | 1 240 | 1 941 | 22 815 | 16.2 | 37.7 | 58.0 |
| Finland | 1 269 | 69 | 647 | 15.4 | 23.3 | 26.6 |
| Iceland | 5 | — | 2 | 11.3[1] | — | — |
| Norway | 916 | — | 706 | 18.5 | — | 37.2 |
| Sweden | 1 740 | 1 866 | 2 783 | 13.5 | 36.6 | 37.1 |
| Total | 5 170 | 3 876 | 26 953 | 15.2 | 36.9 | 52.6 |

[1]) Potatoes and other root-crops.

*Table 8.*

## *Exports of Agricultural Produce in 1935.*[1])

### *A. Quantity.*

| Species | Unit | Denmark [2]) | Finland | Iceland [2]) | Norway [2]) | Sweden |
|---|---|---|---|---|---|---|
| Horses | No. | 5 248 | 343 | 978 | 148 | 265 |
| Cattle | » | 96 797 | 468 | — | 21 | 5 956 |
| Pigs | » | 53 337 | — | — | 123 | 43 |
| Other live animals | » | . | . | — | . | . |
| Bacon | Ton | 199 681 | 2 626 | — | 1 029 | 13 214 |
| Beef and veal, fresh | » | 8 582 | — | — | — | 36 |
| Liver, hearts and kidneys | » | 6 728 | — | — | — | — |
| Casings | » | 10 289 | 86 | 61 | 240 | — |
| Poultry, slaughtered | » | 2 384 | 798 | — | 143 | — |
| Other kinds of meat and offal | » | 4 461 | 2 290 | 2 786 | : | 3 370 |
| Butter | » | 138 356 | 10 243 | — | 189 | 20 262 |
| Condensed milk and cream | » | 18 549 | 222 | — | 2 983 | 1 |
| Cheese | » | 6 663 | 4 248 | 50 | 1 437 | 124 |
| Lard | » | 12 276 | 1 | — | 4 | 674 |
| Tinned goods, sausages etc. | » | 4 515 | — | — | 46 | 1 |
| Cereals, unground | » | 76 412 | 306 | — | 82 | 158 132 |
| Seeds for sowing | » | 11 974 | 246 | — | — | 343 |
| Potatoes | » | 5 771 | 50 | — | 532 | 51 |
| Wool | » | 194 | 113 | 753 | 93 | 185 |
| Hides and skins, raw | » | 14 015 | 3 776 | 945 | 6 874 | 12 239 |
| Hair and bristles | » | 719 | 22 | — | 22 | 422 |
| Bone, horn etc. | » | 896 | 482 | — | 342 | 31 |
| Tallow | » | 2 944 | — | — | 373 | 645 |
| Grease, technical | » | 6 490 | — | — | 191 | 1 420 |
| Eggs | 100 score | 586 125 | 72 299 | — | 5 225 | 26 415 |

[1]) A limited export takes place of various other kinds of agricultural produce, e. g. casein, malt and fodder, and also of horticultural produce.

[2]) Re-export not included.

*Table 8 (cont.).*

## *Exports of Agricultural Produce in 1935.*[1])

*B. Value in £ 1 000.*

| Species | Denmark [2]) | Finland | Iceland [2]) | Norway [2]) | Sweden | Total |
|---|---|---|---|---|---|---|
| Horses | 250 | 12 | 6 | 6 | 14 | 288 |
| Cattle | 956 | 6 | — | — | 131 | 1 093 |
| Pigs | 259 | — | — | — | 1 | 260 |
| Other live animals | 2 | 1 | — | 4 | 9 | 16 |
| Bacon | 17 002 | 141 | — | 62 | 1 025 | 18 230 |
| Beef and veal, fresh | 270 | — | — | — | 2 | 272 |
| Liver, hearts and kidneys | 452 | — | — | — | — | 452 |
| Casings | 603 | 7 | 16 | 19 | — | 645 |
| Poultry, slaughtered | 197 | 34 | — | 8 | — | 239 |
| Other kinds of meat and offal | 72 | 88 | 114[3]) | 7 | 190 | 471 |
| Butter | 12 453 | 858 | — | 19 | 1 717 | 15 047 |
| Condensed milk and cream | 528 | 4 | — | 114 | — | 646 |
| Cheese | 411 | 290 | 3 | 106 | 9 | 819 |
| Lard | 749 | — | — | — | 37 | 786 |
| Tinned goods, sausages etc. | 421 | — | — | 3 | — | 424 |
| Cereals, unground | 400 | 4 | — | 1 | 687 | 1 092 |
| Seeds for sowing | 440 | 16 | — | — | 35 | 491 |
| Potatoes | 25 | — | — | 3 | — | 28 |
| Wool | 22 | 6 | 59 | 9 | 21 | 117 |
| Hides and skins, raw | 697 | 261 | 93 | 1 435 | 996 | 3 482 |
| Hair and bristles | 25 | 1 | — | 2 | 32 | 60 |
| Bone, horn etc. | 5 | 3 | — | 2 | — | 10 |
| Tallow | 87 | — | — | 10 | 18 | 115 |
| Grease, technical | 182 | — | — | 3 | 27 | 212 |
| Eggs | 3 952 | 498 | — | 45 | 194 | 4 689 |
| Total agr. products | 40 460 | 2 230 | 291 | 1 858 | 5 145 | 49 984 |
| Total exports | 54 170 | 27 281 | 2 157 | 31 993 | 66 880 | 182 481 |
| Agr. products in per cent. of total exports | 74.7 | 8.1 | 13.5 | 5.8 | 7.7 | 27.4 |

[1]) A limited export takes place of various other kinds of agricultural produce, e. g. casein, malt and fodder, and also of horticultural produce.

[2]) Re-export not included.

[3]) Mutton: £ 113,171.

*Table 9.*

## *The Yield of Sea Fisheries in 1934.*

### *A. Quantity in tons.*

| Species | Denmark (excl. Faroes) | Faroes | Finland | Iceland | Norway | Sweden | Total |
|---|---|---|---|---|---|---|---|
| Herring ..... | 14 041 | 185 | 20 030 | 69 853 | 377 678 | 57 601 | 539 388 |
| Mackerel ..... | 3 958 | — | — | — | 9 183 | 3 721 | 16 862 |
| Sprat ..... | 894 | — | 631 | — | 5 419 | 1 688 | 8 632 |
| Eel ..... | 4 947 | — | — | — | 674 | 1 845 | 7 466 |
| Cod ..... | 22 408 | 55 882 | 903 | 223 796 | 278 470 | 9 923 | 591 382 |
| Dab ..... | 3 046 | — | — | 13 | — | 1 969 | 5 028 |
| Dog-fish ..... | 1 | — | — | 6 | 3 863 | 131 | 4 001 |
| Flounder ..... | 3 601 | — | — | — | — | — | 3 601 |
| Haddock ..... | 2 211 | 65 | — | 5 971 | 19 558 | 5 590 | 33 395 |
| Halibut ..... | 30 | 57 | — | 383 | 3 860 | 34 | 4 364 |
| Ling ..... | 1 | — | — | 1 758 | 9 995 | 3 109 | 14 863 |
| Norw. haddock .. | — | — | — | 607 | 3 306 | — | 3 913 |
| Plaice ..... | 23 206 | 49 | — | 602 | 3 574 | 1 623 | 29 054 |
| Saith ..... | 121 | 2 | — | 7 090 | 41 668 | 222 | 49 103 |
| Torsk ..... | — | — | — | 463 | 6 507 | 202 | 7 172 |
| Whiting ..... | 2 226 | — | — | 4 | 289 | 3 619 | 6 138 |
| Various ..... | 5 887 | 14 | 4 168 | 1 664 | 32 535 | 7 408 | 51 676 |
| Total | 86 578 | 56 254 | 25 732 | 312 210 | 796 579 | 98 685 | 1 376 038 |

### *B. Value in £ 1 000.* [1])

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Herring ..... | 158 | 1 | 173 | 110 | 903 | 387 | 1 732 |
| Mackerel ..... | 35 | — | — | — | 96 | 42 | 173 |
| Sprat ..... | 5 | — | 4 | — | 55 | 23 | 87 |
| Eel ..... | 274 | — | — | — | 27 | 140 | 441 |
| Cod ..... | 211 | 280 | 4 | 889 | 1 355 | 110 | 2 849 |
| Dab ..... | 39 | — | — | — | — | 26 | 65 |
| Dog-fish ..... | — | — | — | — | 22 | 1 | 23 |
| Flounder ..... | 44 | — | — | — | — | — | 44 |
| Haddock ..... | 48 | 1 | — | 51 | 95 | 100 | 295 |
| Halibut ..... | 2 | 2 | — | 13 | 162 | 2 | 181 |
| Ling ..... | — | — | — | 7 | 44 | 45 | 96 |
| Norw. haddock .. | — | — | — | 7 | 19 | — | 26 |
| Plaice ..... | 648 | 1 | — | 20 | 106 | 67 | 842 |
| Saith ..... | 1 | — | — | 36 | 116 | 2 | 155 |
| Torsk ..... | — | — | — | 1 | 23 | 1 | 25 |
| Whiting ..... | 3 | — | — | — | 4 | 35 | 42 |
| Various ..... | 209 | — | 147 | 105 | 463 | 403 | 1 327 |
| Total | 1 677 | 285 | 328 | 1 239 | 3 490 | 1 384 | 8 403 |

[1]) Comprising value of shellfish, the quantity of which is not included in table A above.

*Table 10.*

## *Percentage Figures of the Yield within Different Fishing Grounds in 1934.*

| Fishing ground | Yield of each ground in per cent. of total yield of European waters | Percentage of yield taken by the Northern Countries within different fishing grounds |
|---|---|---|
| North Sea | 29.5 | 18.2 |
| Cattegat and Skagerak | 2.6 | 98.4 |
| Beltsea | 0.7 | 80.3 |
| Baltic | 3.4 | 51.2 |
| Icelandic Grounds | 19.2 | 58.0 |
| Faroese Grounds | 1.7 | 3.6 |
| Norwegian Sea | 15.5 | 95.7 |
| Barents Sea | 5.5 | 55.6 |
| Spitsbergen, Bear Island | 1.8 | 6.7 |
| Greenland, Newfoundland | 2.7 | 36.4 |
| Total | 82.6 | 49.0 |
| European waters[1]) total | 100.0 | 40.4 |

[1]) North and West-European.

*Table 11.*

## *Shellfish landed in the Northern Countries in 1934.*

*Quantity in tons.*

| Species | Denmark | Norway | Sweden | Total | Percentage of the whole European catch |
|---|---|---|---|---|---|
| Lobster | 149 | 1 094 | 287 | 1 530 | 65.5 |
| Norway Lobster | 280 | — | 339 | 619 | 56.7 |
| Crabs | — | 5 677 | 134 | 5 811 | — |
| Prawn | 506 | 3 211 | 1 003 | 4 720 | 90.3 |
| Oysters | 2 000 | 6 | — | 2 006 | — |
| Mussels | 1 950 | — | — | 1 950 | 2.3 |
| Various | — | 561 | — | 561 | 8.5 |
| Total | 4 885 | 10 549 | 1 763 | 17 197 | |

*Table 12.*

## *Exports of Fish and Fishery-products in 1935.*

### *A. Quantity in tons.*

| | Denmark (excl. Faroes) | Faroes | Finland | Iceland | Norway | Sweden | Total |
|---|---|---|---|---|---|---|---|
| Herring, fresh | 9 708 | — | 2 | 44 | 98 440 | 10 416 | 118 610 |
| » salted and spiced | 132 | 400 | 981 | 15 009 | 35 185 | 2 312 | 54 019 |
| » smoked | 2 | . | . | . | 1 951 | . | 1 953 |
| Fish, fresh, frozen and iced | 39 932 | 326 | 1 425 | 16 340 | 24 097 | 4 231 | 86 351 |
| » dried (stockfish) | . | . | 68 | 150 | 22 042 | 11 | 22 271 |
| Wetsalted fish | 5 | 1 793 | 631 | 14 409 | 4 708 | 142 | 21 688 |
| Saltfish fully cured (klipfish) | 774 | 11 324 | . | 38 794 | 35 021 | — | 85 913 |
| Smoked fish | 28 | — | 1 | . | 5 | . | 34 |
| Shellfish | 29 | — | 90 | . | 2 843 | 108 | 3 070 |
| Preserves | 227 | — | 57 | . | 34 667 | 693 | 35 644 |
| Fodder-meal | 368 | — | . | 10 100 | 65 123 | . | 75 591 |
| Guano | 22 | 272 | 5 | 1 243 | 133 | — | 1 675 |
| Roe | 196 | — | 4 | 2 678 | 7 410 | 5 | 10 293 |
| Liver | — | — | — | 13 | 142 | — | 155 |
| Cod-liver oil (medical oil) | 9 | — | . | 4 347 | 9 432 | . | 13 788 |
| Herring oil | . | — | . | 7 760 | 7 010 | . | 14 770 |
| Other fish oil | 276 | 43 | . | 744 | 16 423 | 763 | 18 249 |
| Other fishery-products | 46 | — | . | — | 482 | . | 528 |
| Total | 51 754 | 14 158 | 3 264 | 111 631 | 365 114 | 18 681 | 564 602 |

### *B. Value in £ 1 000.*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Herring, fresh | 84 | — | . | . | 632 | 120 | 836 |
| » salted and spiced | 3 | 7 | 6 | 274 | 429 | 50 | 769 |
| » smoked | . | — | . | . | 22 | . | 22 |
| Fish, fresh, frozen and iced | 1 515 | 3 | 55 | 237 | 732 | 163 | 2 705 |
| » dried (stockfish) | . | — | 2 | 5 | 748 | 1 | 756 |
| Wetsalted fish | . | 25 | 6 | 159 | 88 | 4 | 282 |
| Saltfish fully cured (klipfish) | 19 | 287 | . | 776 | 912 | — | 1 994 |
| Smoked fish | 3 | — | . | . | . | , | 3 |
| Shellfish | 6 | — | 12 | . | 218 | 9 | 245 |
| Preserves | 15 | — | 3 | . | 1 666 | 42 | 1 726 |
| Fodder-meal | 4 | — | . | 94 | 626 | . | 724 |
| Guano | . | 1 | . | 6 | 2 | — | 9 |
| Roe | 16 | — | — | 31 | 105 | — | 152 |
| Liver | — | — | — | 1 | 15 | — | 16 |
| Cod-liver oil (medical oil) | 7 | — | . | 162 | 351 | . | 520 |
| Herring oil | . | — | . | 80 | 100 | . | 180 |
| Other fish oil | 6 | 1 | . | 14 | 311 | 11 | 343 |
| Other fishery-products | 1 | — | . | — | 16 | . | 17 |

*Table 13.*

## *Exports of Fish and Fishery-products in 1935 according to Countries of Sale.*

*Value in £ 1 000*

| Country of sale | Denmark (excl. Faroes) | Faroes | Finland | Iceland | Norway[1]) | Sweden |
|---|---|---|---|---|---|---|
| *Northern Countries* ..... | 108 | 16 | 77 | 455 | 602 | 109 |
| Belgium—Luxemburg ..... | 88 | — | — | 10 | 156 | 9 |
| France ..... | 39 | — | — | 9 | 233 | 9 |
| Germany ..... | 416 | . | — | 157 | 698 | 167 |
| Great Britain ..... | 892 | 21 | — | 248 | 1 230 | 17 |
| Italy ..... | 13 | 17 | — | 126 | 322 | 1 |
| Netherlands ..... | 53 | — | — | 6 | 156 | 10 |
| Poland—Danzig ..... | 2 | — | — | 12 | 109 | 7 |
| Portugal ..... | 5 | — | — | 343 | 253 | — |
| Spain ..... | 12 | 269 | — | 275 | 385 | — |
| Czechoslovakia ..... | 6 | — | — | — | 47 | 9 |
| West-Africa ..... | . | — | — | — | 305 | — |
| Argentine ..... | . | — | — | 1 | 139 | — |
| Brazil ..... | . | — | — | 20 | 47 | — |
| Canada ..... | — | — | — | — | 82 | — |
| Cuba ..... | 1 | — | — | 2 | 117 | — |
| U. S. A. ..... | . | — | 1 | 171 | 1 133 | 47 |
| Australia ..... | . | — | 1 | — | 122 | — |
| Other countries ..... | 44 | 1 | 5 | 4 | 837 | 15 |
| Total | 1 679 | 324 | 84 | 1 839 | 6 973 | 400 |

[1]) Exports according to countries of consumption.

*Table 14.*

## *Norwegian Whaling in 1934—1936.*

| | Unit | 1934 | 1935 | 1936 |
|---|---|---|---|---|
| *Catch:* | | | | |
| Whales caught ..... | Number | 13 657 | 16 939 | 15 670 |
| Oil production ..... | 1 000 tons | 212 | 210 | 197 |
| Value of oil production etc... | £ 1 000 | 2 106 | 2 563 | 3 487 |
| *Export:* | | | | |
| Whale oil[1]) Quantity ..... | 1 000 tons | 200 | 163 | 165 |
| Whale oil[1]) Value ..... | £ 1 000 | 1 960 | 2 085 | 2 930 |
| Hardened fat Quantity .... | 1 000 tons | 38 | 53 | 52 |
| Hardened fat Value ..... | £ 1 000 | 686 | 1 017 | 1 188 |

[1]) Including oil delivered direct from the whaling grounds.

*Table 15.*

*Number of Workers and Gross Value*

| Principal groups | 1933 | | 1934 | | 1935 | |
|---|---|---|---|---|---|---|
| | Number of workers | Value of prod. £ 1 000 | Number of workers | Value of prod. £ 1 000 | Number of workers | Value of prod. £ 1 000 |
| | Denmark[1]) | | | | | |
| 1. Preparation of foodstuffs | 27 359 | 50 044 | 28 204 | 47 019 | 29 137 | 49 477 |
| 2. Textiles | 13 535 | 6 168 | 15 310 | 7 089 | 15 297 | 7 405 |
| 3. Clothing | 13 266 | 5 875 | 14 757 | 6 647 | 16 321 | 7 489 |
| 4. Leather and leather goods | 4 983 | 2 710 | 5 570 | 2 902 | 5 900 | 3 211 |
| 5. Wood goods | 6 314 | 2 260 | 7 719 | 2 911 | 8 179 | 3 220 |
| 6. Stone, earthen and glass ware | 8 951 | 3 057 | 11 006 | 3 643 | 12 028 | 3 846 |
| 7. Metal | 31 677 | 14 181 | 37 544 | 18 342 | 43 650 | 21 932 |
| 8. Chemicals etc. | 18 352 | 16 059 | 20 229 | 17 021 | 21 692 | 19 025 |
| Total | 124 437 | 100 354 | 140 339 | 105 574 | 152 204 | 115 605 |
| | Finland[2]) | | | | | |
| 1. Mining | 354 | 139 | 436 | 168 | 533 | 373 |
| 2. Smelters and metal refining | 4 699 | 1 731 | 5 477 | 2 273 | 5 994 | 2 553 |
| 3. Machine shops | 18 450 | 3 481 | 20 924 | 4 629 | 24 276 | 5 508 |
| 4. Finer machine industries | 204 | 41 | 263 | 55 | 345 | 79 |
| 5. Stone, clay, glass, coal and peat industries | 8 687 | 1 371 | 10 194 | 1 819 | 11 125 | 2 077 |
| 6. Chemical industry | 2 229 | 1 263 | 2 515 | 1 475 | 2 752 | 1 607 |
| 7. Leather and tanning industries | 6 767 | 2 018 | 7 569 | 2 492 | 8 977 | 2 959 |
| 8. Spinning and weaving industries | 22 113 | 5 240 | 26 797 | 6 663 | 29 977 | 7 218 |
| 9. Paper industry | 16 730 | 10 994 | 17 398 | 12 490 | 18 556 | 13 595 |
| 10. Timber industry | 42 497 | 9 431 | 51 278 | 12 815 | 51 599 | 11 344 |
| 11. Manufacture of foodstuffs and luxuries | 10 400 | 9 541 | 10 890 | 10 293 | 11 734 | 11 263 |
| 12. Lighting, power transmission and water conduits | 2 699 | 1 472 | 2 804 | 1 536 | 2 987 | 1 591 |
| 13. Printing industry | 4 821 | 1 003 | 5 069 | 1 077 | 5 356 | 1 176 |
| 14. Other industries | 86 | 14 | 68 | 10 | 99 | 15 |
| Total | 140 736 | 47 739 | 161 682 | 57 795 | 174 310 | 61 358 |

*Note.* The figures for the value of production of the different countries are not strictly comparable.

[1]) Concerns with not less than 5 workers.

[2]) Concerns with a value of production of at least 100 000 mk. (£ 441).

*of Mineral and Industrial Production.*

| Principal groups | 1933 | | 1934 | | 1935 | |
|---|---|---|---|---|---|---|
| | Number of workers | Value of prod. £ 1 000 | Number of workers | Value of prod. £ 1 000 | Number of workers | Value of prod. £ 1 000 |
| | Norway[3]) | | | | | |
| 1. Ore and metal extraction | 7 771 | 6 458 | 8 505 | 6 882 | 9 111 | 7 500 |
| 2. Earth and stone | 5 697 | 1 666 | 7 167 | 1 941 | 7 102 | 2 106 |
| 3. Iron and metal | 22 655 | 9 337 | 24 225 | 10 593 | 27 923 | 12 326 |
| 4. Chemical and electro-chemical | 3 760 | 4 714 | 3 506 | 3 745 | 3 749 | 4 923 |
| 5. Oils and fats | 2 319 | 3 910 | 2 074 | 3 368 | 2 556 | 4 407 |
| 6. Gasworks | 651 | 441 | 625 | 418 | 645 | 437 |
| 7. Timber and wood | 8 220 | 3 626 | 9 046 | 4 153 | 10 187 | 4 548 |
| 8. Wood-pulp and paper | 14 153 | 9 741 | 14 697 | 10 796 | 14 615 | 10 675 |
| 9. Leather and rubber goods | 2 274 | 1 283 | 2 536 | 1 397 | 2 685 | 1 621 |
| 10. Textiles | 11 505 | 5 232 | 12 179 | 5 708 | 12 291 | 5 962 |
| 11. Clothing | 9 518 | 3 574 | 10 139 | 3 770 | 10 944 | 4 112 |
| 12. Foods and drinks, tobacco etc. | 13 976 | 15 276 | 13 748 | 15 419 | 15 240 | 16 822 |
| 13. Polygraphic industry incl. printing works | 4 914 | 2 120 | 5 005 | 2 136 | 5 350 | 2 286 |
| Total | 107 413 | 67 378 | 113 452 | 70 326 | 122 398 | 77 725 |
| | Sweden[4]) | | | | | |
| 1. Mining and metal industry | 117 706 | 52 281 | 139 546 | 70 984 | 159 906 | 85 555 |
| 2. Earth and stone industry | 31 111 | 6 023 | 31 924 | 7 662 | 34 806 | 9 248 |
| 3. Timber industry | 48 242 | 15 141 | 56 709 | 20 663 | 59 229 | 20 380 |
| 4. Paper and printing industry | 52 290 | 30 700 | 53 994 | 33 965 | 55 696 | 36 024 |
| 5. Foodstuff industry | 41 611 | 54 018 | 43 724 | 59 267 | 44 957 | 64 476 |
| 6. Textile and clothing industry | 61 975 | 24 270 | 70 663 | 29 899 | 73 157 | 31 091 |
| 7. Leather-, hair- and rubber industry | 20 804 | 8 762 | 22 190 | 9 611 | 22 813 | 10 452 |
| 8. Chemico-technical industry | 12 331 | 10 582 | 12 470 | 11 622 | 12 936 | 13 610 |
| 9. Power station, lighting and water works | 7 111 | 10 394 | 7 147 | 10 818 | 7 369 | 11 435 |
| Total | 393 181 | 212 171 | 438 367 | 254 491 | 470 869 | 282 271 |

[3]) Concerns with not less than 12 000 working hours annually. Excluding electricity works, dairies and water works. The gross value of the production of electrical energy was £ 5.4 mill.

[4]) Concerns with not less than 10 workers or a value of production of at least 15 000 kr. (£ 754), or a refinement value of at least 4 000 kr. (£ 201).

*Table 16.*

## *Production and Exports of Sawn Goods.*

*Planed and unplaned. — Quantity in 1 000 stds.*

| Year | Finland | | Norway | | Sweden | | Total | |
|---|---|---|---|---|---|---|---|---|
| | Prod. | Exp. | Prod. | Exp. | Prod. | Exp. | Prod. | Exp. |
| 1900 ..... | 601 | 529 | 412 | 276 | 1 473 | 1 010 | 2 486 | 1 815 |
| 1905 ..... | 594 | 617 | 353 | 264 | 1 286 | 971 | 2 233 | 1 852 |
| 1910 ..... | 774 | 678 | 391 | 199 | 1 454 | 992 | 2 619 | 1 869 |
| 1915 ..... | 489 | 11 | 362 | 183 | 1 450 | 1 102 | 2 301 | 1 296 |
| 1920 ..... | 625 | 770 | 323 | 135 | 1 457 | 1 020 | 2 405 | 1 925 |
| 1925 ..... | 1 111 | 1 040 | 283 | 133 | 1 318 | 1 023 | 2 712 | 2 196 |
| 1930 ..... | 972 | 946 | 227 | 104 | 1 423 | 1 027 | 2 622 | 2 077 |
| 1935 ..... | 1 173 | 1 042 | 200 | 39 | 1 036 | 769 | 2 409 | 1 850 |

*Table 17.*

## *Production and Exports of Mechanical Pulp, Cellulose and Paper in 1933.*

| Country | Mech. pulp [1] | | Cellulose [1] | | Paper | |
|---|---|---|---|---|---|---|
| | Prod. | Exp. | Prod. | Exp. | Prod. | Exp. |
| | Quantity in 1 000 tons | | | | | |
| Finland ..... | 460 | 208 | 919 | 798 | 372 | 319 |
| Norway ..... | 462 | 297 | 393 | 243 | 314 | 260 |
| Sweden ..... | 611 | 314 | 1 952 | 1 602 | 638 | 459 |
| *Northern Countries* ..... | 1 533 | 819 | 3 264 | 2 643 | 1 324 | 1 038 |
| Other European countries .. | 1 652 | 23 | 2 222 | 611 | 6 252 | 550 |
| Other continents ..... | 3 210 | 119 | 4 249 | 477 | 7 084 | 2 218 |
| World ..... | 6 395 | 961 | 9 735 | 3 731 | 14 660 | 3 806 |
| | Percentage | | | | | |
| *Northern Countries* ..... | 24 | 85 | 34 | 71 | 9 | 27 |
| Other European countries .. | 26 | 2 | 23 | 16 | 43 | 14 |
| Other continents ..... | 50 | 13 | 43 | 13 | 48 | 59 |
| World ..... | 100 | 100 | 100 | 100 | 100 | 100 |
| Northern Countries in per cent. of Europe ..... | 48 | 97 | 59 | 81 | 17 | 65 |

[1]) Dry weight.

*Table 18.*

## *Production of Mechanical Pulp, Cellulose and Paper in the Northern Countries since 1900.*

*Quantity in 1 000 tons.*

| Year | Mechanical pulp [1] | Cellulose [1] | Paper |
|---|---|---|---|
| 1900 | 406.6 | 322.2 | 201.5 |
| 1901 | 436.6 | 343.8 | 207.7 |
| 1902 | 493.4 | 368.8 | 225.7 |
| 1903 | 501.0 | 406.7 | 249.9 |
| 1904 | 508.6 | 447.1 | 273.7 |
| 1905 | 575.1 | 500.4 | 328.0 |
| 1906 | 566.9 | 578.1 | 367.1 |
| 1907 | 649.7 | 668.4 | 403.7 |
| 1908 | 660.2 | 811.8 | 420.7 |
| 1909 | 712.5 | 759.0 | 429.4 |
| 1910 | 760.4 | 1 007.6 | 513.8 |
| 1911 | 721.4 | 1 038.1 | 534.5 |
| 1912 | 831.2 | 1 216.8 | 605.9 |
| 1913 | 800.8 | 1 294.0 | 653.1 |
| 1914 | 714.4 | 1 306.1 | 631.6 |
| 1915 | 778.9 | 1 356.8 | 718.0 |
| 1916 | 851.8 | 1 427.7 | 767.1 |
| 1917 | 634.6 | 1 057.9 | 546.7 |
| 1918 | 618.7 | 921.4 | 452.0 |
| 1919 | 678.9 | 978.1 | 465.8 |
| 1920 | 826.1 | 1 449.2 | 727.8 |
| 1921 | 572.2 | 928.7 | 486.1 |
| 1922 | 812.4 | 1 560.5 | 800.3 |
| 1923 | 942.7 | 1 638.0 | 851.6 |
| 1924 | 1 033.2 | 1 862.2 | 906.4 |
| 1925 | 1 113.4 | 2 063.9 | 1 063.7 |
| 1926 | 1 145.3 | 2 222.4 | 1 065.2 |
| 1927 | 1 252.4 | 2 446.9 | 1 161.6 |
| 1928 | 1 330.9 | 2 248.3 | 1 169.2 |
| 1929 | 1 516.5 | 2 954.2 | 1 317.8 |
| 1930 | 1 457.9 | 2 980.1 | 1 230.8 |
| 1931 | 1 472.8 | 2 680.8 | 1 158.1 |
| 1932 | 1 373.2 | 2 785.6 | 1 300.2 |
| 1933 | 1 532.9 | 3 264.1 | 1 324.3 |
| 1934 | 1 722.8 | 3 669.1 | 1 428.3 |
| 1935 | 1 743.3 | 3 906.5 | 1 558.0 |

[1] Dry weight.

*Table 19.*

## *Exports of Ore, Metals and Manufactures thereof and Machinery in 1935.*

### *A. Quantity in tons.*

| | Denmark | Finland | Norway | Sweden | Total |
|---|---|---|---|---|---|
| Iron-ore | — | — | — | 6 906 174 | 6 906 174 |
| Iron-ore concentrate and briquettes | — | — | 786 288 | 812 718 | 1 599 006 |
| Pyrites (not roasted) | — | . | 601 354 | 4 734 | 606 088 |
| Copper ore and copper matte | — | 57 209 | 14 414 | 1 703 | 73 326 |
| Zinc ore | — | . | 11 005 | 59 939 | 70 944 |
| Other ore | 956 | 3 798 | 126 172 | 37 021 | 167 947 |
| Pig iron | — | 3 568 | 26 938 | 64 768 | 211 812 |
| Ferro-alloys | — | | 86 312 | 30 226 | |
| Other iron and steel in bars, sheets, tubes etc. | 1 206 | 293 | 4 980 | 164 832 | 171 311 |
| Iron and steel, worked | 5 061 | 1 158 | 5 652 | 53 848 | 65 717 |
| Copper and copper-alloys crude or simply prepared | 116 | 228 | 7 062 | 14 109 | 21 514 |
| Zinc » | 319 | 895 | 42 185 | 261 | 88 935 |
| Nickel » | 3 | | 5 774 | 3 | |
| Aluminium » | 19 | | 15 313 | 37 | |
| Other base metals » | 1 301 | | 21 988 | 838 | |
| Base metals excl. iron and steel, worked | 1 653 | 12 | 138 | 3 188 | 4 990 |
| Ships[1] | 109 | 44 | 121 | 101 | 375 |
| Motor cars complete[2] | 7 054 | — | — | 537 | 7 591 |
| Machinery and apparatus, electrical materials, other transport materials, instruments and arms | 17 624 | 1 186 | 2 611 | 58 590 | 80 011 |

[1] 1 000 reg. ton.
[2] Number.

*Table 19 (cont.).*

*Exports of Ore, Metals and Manufactures thereof and Machinery in 1935.*

*B. Value in £ 1 000.*

| | Denmark | Finland | Norway | Sweden | Total |
|---|---|---|---|---|---|
| Iron-ore | — | — | — | 4 603 | 4 603 |
| Iron-ore concentrate and briquettes | — | — | 543 | 529 | 1 072 |
| Pyrites (not roasted) | — | — | 435 | 3 | 438 |
| Copper ore and copper matte | — | 159 | 103 | 9 | 271 |
| Zinc ore | — | — | 25 | 155 | 180 |
| Other ore | 1 | 11 | 270 | 103 | 385 |
| Pig iron | — | 253 | 143 | 316 | 2 879 |
| Ferro-alloys | — | | 1 170 | 997 | |
| Other iron and steel in bars, sheets, tubes etc. | 17 | 4 | 128 | 4 291 | 4 440 |
| Iron and steel, worked | 404 | 48 | 295 | 3 637 | 4 384 |
| Copper and copper-alloys, crude or simply prepared | 7 | 7 | 234 | 630 | 878 |
| Zinc » | 4 | 19 | 627 | 3 | 3 430 |
| Nickel » | — | | 1 026 | 1 | |
| Aluminium » | 2 | | 1 287 | 4 | |
| Other base metals » | 57 | | 331 | 69 | |
| Base metals excl. iron and steel, worked | 231 | 2 | 30 | 719 | 982 |
| Ships | 1 467 | 208 | 565 | 681 | 2 921 |
| Motor cars | 924 | — | — | 397 | 1 321 |
| Machinery and apparatus, electrical materials, other transport materials, instruments and arms | 1 453 | 136 | 363 | 7 549 | 9 501 |

*Table 20.*

## *Exports of Various Industrial Products in 1935.*

### *A. Quantity in tons.*

| | Denmark | Finland | Norway | Sweden | Total |
|---|---|---|---|---|---|
| Coconut oil and lard | 24 953 | . | 1 695 | 5 584 | 32 232 |
| Soya-bean oil | 19 609 | . | — | 3 061 | 22 670 |
| Other vegetable oils and fats | 31 174 | 667 | 1 446 | 270 | 33 557 |
| Crudestone in blocks | — | 10 672 | 17 892 | 68 803 | 97 367 |
| Pavingstone, curb and quaystone, buildingstone etc. | — | 20 429 | 78 767 | 119 654 | 218 850 |
| Cement | 303 670 | 346 | 46 788 | 33 515 | 384 319 |
| Synthetic nitrate of calcium | — | . | 353 641 | 2 | 353 643 |
| » » » sodium | — | . | 28 137 | — | 28 137 |
| Calcium cyanamide | — | . | 34 479 | 178 | 34 657 |
| Carbide of calcium | — | . | 33 439 | 9 344 | 42 783 |
| Hydrate of potassium | — | 59 | — | 706 | 765 |
| Clorate of » | — | 953 | — | 4 887 | 5 840 |
| Propellant powders and high explosives | 22 | 1 | 654 | 2 431 | 3 108 |
| Matches | 11 | 1 891 | 773 | 16 759 | 19 434 |
| Wood-tar | — | 854 | 84 | 4 329 | 5 267 |
| Oil of turpentine | 1 | 1 115 | 52 | 2 507 | 3 675 |
| Tannery extracts | 109 | 1 | 749 | 8 163 | 9 022 |

### *B. Value in £ 1 000.*

| | | | | | |
|---|---|---|---|---|---|
| Coconut oil and lard | 520 | . | 33 | 113 | 666 |
| Soya-bean oil | 491 | . | — | 71 | 562 |
| Other vegetable oils and fats | 712 | 12 | 43 | 6 | 773 |
| Crudestone in blocks | — | 21 | 61 | 215 | 297 |
| Pavingstone, curb and quaystone, buildingstone etc. | — | 136 | 108 | 154 | 398 |
| Cement | 261 | 3 | 43 | 28 | 335 |
| Synthetic nitrate of calcium | — | . | 1 970 | — | 1 970 |
| » » » sodium | — | . | 186 | — | 186 |
| Calcium cyanamide | — | . | 163 | 1 | 164 |
| Carbide of calcium | — | . | 263 | 122 | 385 |
| Hydrate of potassium | — | 1 | — | 39 | 40 |
| Clorate of » | — | 26 | — | 127 | 153 |
| Propellant powders and high explosives | 2 | — | 63 | 401 | 466 |
| Matches | 1 | 57 | 39 | 746 | 843 |
| Wood-tar | — | 10 | 1 | 39 | 50 |
| Oil of turpentine | — | 14 | 1 | 37 | 52 |
| Tannery extracts | 2 | — | 4 | 147 | 153 |

*Table 21.*

## *Exports of Some Principal Commodities in 1935.*
## *Special Trade.*

*Value in £ 1 000.*

| Commodity | Denmark [1] | Finland | Iceland | Norway | Sweden | Total |
|---|---|---|---|---|---|---|
| Horses | 234 | 12 | — | 6 | 14 | 266 |
| Cattle, pigs, live | 1 215 | 6 | — | — | 132 | 1 353 |
| Meat | 1 612 | 129 | 96 | 15 | 85 | 1 937 |
| Bacon | 17 027 | 141 | — | 62 | 1 025 | 18 255 |
| Cheese | 411 | 290 | — | 106 | 9 | 816 |
| Butter | 12 453 | 858 | — | 19 | 1 717 | 15 047 |
| Eggs | 3 965 | 498 | — | 45 | 194 | 4 702 |
| Seeds | 440 | 16 | — | — | 35 | 491 |
| Fish | 1 976 | 82 | 1 563 | 3 782 | 347 | 7 750 |
| Canned fish | 15 | 3 | — | 1 666 | 42 | 1 726 |
| Herring meal and other fish meal | — | — | 127 | 616 | — | 743 |
| Skins: Furs | — | 62 | — | 1 152 | 304 | 1 518 |
| » Hides and leather | 697 | 308 | 60 | 464 | 990 | 2 519 |
| Animal oils, cod-liver and whale oil, hardened fats | 834 | 1 | 207 | 3 900 | 71 | 5 013 |
| Vegetable oils and fats | 1 723 | 12 | — | 76 | 190 | 2 001 |
| Timber | 66 | 10 023 | — | 550 | 7 819 | 18 458 |
| Veneer | 3 | 1 443 | — | 47 | 145 | 1 638 |
| Paper pulp | — | 7 265 | — | 3 652 | 13 910 | 24 827 |
| Paper & manufactures thereof | 56 | 3 818 | — | 3 328 | 7 191 | 14 393 |
| Iron-ore and concentrates | — | — | — | 543 | 5 132 | 5 675 |
| Other ore | — | 170 | — | 833 | 270 | 1 273 |
| Stone | — | 157 | — | 157 | 353 | 667 |
| Cement | 255 | 3 | — | 43 | 28 | 329 |
| Nitrate of lime and nitrate of soda | — | — | — | 2 156 | — | 2 156 |
| Carbide of calcium, cyanamide | — | — | — | 426 | 122 | 548 |
| Matches | — | 57 | — | 39 | 746 | 842 |
| Metals, crude, and metal manufactures | 1 097 | 338 | — | 5 385 | 11 271 | 18 091 |
| Machines and appliances | 1 453 | 102 | — | 201 | 6 715 | 8 471 |
| Ships | 1 467 | 208 | — | 565 | 681 | 2 921 |
| Miscellaneous articles | 7 512 | 1 279 | 104 | 2 159 | 7 342 | 18 396 |
| Total | 54 511 | 27 281 | 2 157 | 31 993 | 66 880 | 182 822 |

[1] Including exports from the Faroe Islands, chiefly fish.

*Table 22.*

## *Exports from the Northern Countries in 1935 according to Countries of Sale.*

*A. Value in £ 1 000.*

| Country of sale | Denmark | Finland | Iceland | Norway | Sweden | Total |
|---|---|---|---|---|---|---|
| Europe | 52 094 | 23 353 | 1 943 | 22 886 | 50 520 | 150 796 |
| of which to | | | | | | |
| Denmark | — | 922 | 180 | 1 231 | 3 920 | 6 253 |
| Finland | 650 | — | — | 418 | 2 335 | 3 403 |
| Iceland | 260 | 6 | — | 165 | 109 | 540 |
| Norway | 2 088 | 343 | 169 | — | 3 443 | 6 043 |
| Sweden | 2 507 | 1 297 | 201 | 2 585 | — | 6 590 |
| Germany | 9 079 | 2 560 | 231 | 3 919 | 9 644 | 25 433 |
| Great Britain | 32 626 | 12 757 | 328 | 8 245 | 16 620 | 70 576 |
| U.S.S.R. | 30 | 293 | . | 239 | 522 | 1 084 |
| Estonia | 60 | 150 | . | 8 | 193 | 411 |
| Latvia | 68 | 13 | — | 64 | 132 | 277 |
| Lithuania | 104 | 10 | . | 21 | 139 | 274 |
| Poland—Danzig | 321 | 44 | 12 | 307 | 809 | 1 493 |
| Netherlands | 605 | 834 | 7 | 734 | 2 052 | 4 232 |
| Belgium—Luxemburg | 837 | 1 545 | 10 | 842 | 1 957 | 5 191 |
| France | 510 | 1 237 | 9 | 1 488 | 2 905 | 6 149 |
| Portugal | 141 | 33 | 344 | 322 | 195 | 1 035 |
| Spain | 277 | 233 | 276 | 810 | 1 467 | 3 063 |
| Italy | 277 | 473 | 127 | 535 | 1 542 | 2 954 |
| Switzerland | 600 | 57 | 3 | 260 | 434 | 1 354 |
| Czechoslovakia | 312 | 55 | 0.2 | 231 | 616 | 1 214 |
| Austria | 158 | 29 | — | 152 | 189 | 528 |
| Hungary | 37 | 24 | — | 24 | 68 | 153 |
| Roumania | 30 | 4 | . | 21 | 100 | 155 |
| Turkey | 27 | 101 | . | 44 | 351 | 523 |
| Greece | 45 | 58 | 1 | 80 | 390 | 574 |
| America | 1 025 | 2 928 | 214 | 4 204 | 10 627 | 18 998 |
| of which to | | | | | | |
| Canada | 56 | 32 | — | 224 | 458 | 770 |
| U.S.A. | 409 | 2 467 | 191 | 3 061 | 8 023 | 14 151 |
| Brazil | 107 | 129 | 20 | 103 | 450 | 809 |

*Table 22 (cont.).*

## *Exports from the Northern Countries in 1935 according to Countries of Sale.*

*B. Percentage.*

| Country of sale | Denmark | Finland | Iceland | Norway | Sweden | Total |
|---|---|---|---|---|---|---|
| Europe | 96.2 | 85.7 | 90.1 | 76.2 | 75.5 | 83.5 |
| of which to | | | | | | |
| Denmark | — | 3.4 | 8.3 | 4.1 | 5.9 | 3.5 |
| Finland | 1.1 | — | — | 1.4 | 3.5 | 1.9 |
| Iceland | 0.5 | — | — | 0.5 | 0.2 | 0.3 |
| Norway | 3.9 | 1.3 | 7.8 | — | 5.1 | 3.3 |
| Sweden | 4.6 | 4.8 | 9.3 | 8.6 | — | 3.6 |
| Germany | 16.8 | 9.4 | 10.7 | 13.1 | 14.4 | 14.1 |
| Great Britain | 60.2 | 46.8 | 15.2 | 27.5 | 24.9 | 39.1 |
| U.S.S.R. | 0.1 | 1.1 | . | 0.8 | 0.8 | 0.6 |
| Estonia | 0.1 | 0.5 | . | — | 0.3 | 0.2 |
| Latvia | 0.1 | — | — | 0.2 | 0.2 | 0.2 |
| Lithuania | 0.2 | — | . | 0.1 | 0.2 | 0.2 |
| Poland—Danzig | 0.6 | 0.2 | 0.6 | 1.0 | 1.2 | 0.8 |
| Netherlands | 1.1 | 3.1 | 0.3 | 2.4 | 3.1 | 2.3 |
| Belgium—Luxemburg | 1.5 | 5.7 | 0.5 | 2.8 | 2.9 | 2.9 |
| France | 0.9 | 4.5 | 0.4 | 5.0 | 4.3 | 3.4 |
| Portugal | 0.3 | 0.1 | 15.9 | 1.1 | 0.3 | 0.6 |
| Spain | 0.5 | 0.9 | 12.8 | 2.7 | 2.7 | 1.7 |
| Italy | 0.5 | 1.7 | 5.9 | 1.8 | 2.3 | 1.6 |
| Switzerland | 1.1 | 0.2 | 0.1 | 0.9 | 0.6 | 0.8 |
| Czechoslovakia | 0.6 | 0.2 | 0.01 | 0.3 | 0.9 | 0.7 |
| Austria | 0.3 | 0.1 | — | 0.5 | 0.3 | 0.3 |
| Hungary | 0.1 | 0.1 | — | 0.1 | 0.1 | 0.1 |
| Roumania | 0.1 | — | . | 0.1 | 0.1 | 0.1 |
| Turkey | — | 0.4 | . | 0.1 | 0.5 | 0.3 |
| Greece | 0.1 | 0.2 | — | 0.3 | 0.6 | 0.3 |
| America | 1.9 | 10.6 | 9.9 | 14.0 | 15.9 | 10.5 |
| of which to | | | | | | |
| Canada | 0.1 | 0.1 | — | 0.7 | 0.7 | 0.4 |
| U.S.A. | 0.8 | 9.0 | 8.9 | 10.2 | 12.0 | 7.8 |
| Brazil | 0.2 | 0.5 | 0.9 | 0.3 | 0.7 | 0.4 |

*Table 22 (cont.).*

## *Exports from the Northern Countries in 1935 according to Countries of Sale.*

*A. Value in £ 1 000.*

| Country of sale | Denmark | Finland | Iceland | Norway | Sweden | Total |
|---|---|---|---|---|---|---|
| Argentine | 115 | 251 | 1 | 349 | 919 | 1 635 |
| Venezuela | 17 | 1 | . | 1 | 38 | 57 |
| Africa | 480 | 600 | 0.2 | 948 | 1 503 | 3 531 |
| of which to | | | | | | |
| Morocco | 154 | 26 | . | 12 | 85 | 277 |
| Union of South Africa | 113 | 214 | . | 247 | 822 | 1 396 |
| Egypt | 1 | 249 | — | 581 | 254 | 1 085 |
| Asia | 528 | 346 | — | 1 638 | 3 327 | 5 839 |
| of which to | | | | | | |
| South West Asia | 162 | 58 | . | 32 | 676 | 928 |
| British Indies | 153 | 34 | — | 279 | 539 | 1 005 |
| Ceylon | 6 | 2 | . | 5 | | 13 |
| Siam | 54 | 4 | . | 71 | 197 | 326 |
| Dutch East Indies | 35 | 1 | . | 33 | 85 | 154 |
| China | 41 | 4 | . | 272 | 549 | 866 |
| Japan | 33 | 238 | — | 906 | 1 130 | 2 307 |
| Australia | 43 | 54 | . | 356 | 902 | 1 355 |
| of which to | | | | | | |
| Australia | 32 | 50 | . | 318 | 766 | 1 166 |
| New Zealand | 11 | 4 | . | 32 | 128 | 175 |
| All Continents | 54 170 | 27 281 | 2 157 | 30 032[1] | 66 879 | 180 519 |

[1]) Excluding whale oil delivered direct from the whaling grounds as figures do not exist regarding the distribution of oil by countries.

*Table 22 (cont.)*

## *Exports from the Northern Countries in 1935 according to Countries of Sale.*

*B. Percentage.*

| Country of sale | Denmark | Finland | Iceland | Norway | Sweden | Total |
|---|---|---|---|---|---|---|
| Argentine | 0.2 | 0.9 | — | 1.2 | 1.4 | 0.9 |
| Venezuela | — | — | . | — | 0.1 | — |
| Africa | 0.9 | 2.2 | 0.01 | 3.1 | 2.2 | 2.0 |
| of which to | | | | | | |
| Morocco | 0.3 | 0.1 | . | — | 0.1 | 0.2 |
| Union of South Africa | 0.2 | 0.3 | . | 0.3 | 1.2 | 0.3 |
| Egypt | — | 0.9 | — | 1.9 | 0.4 | 0.6 |
| Asia | 1.0 | 1.3 | — | 5.5 | 5.0 | 3.2 |
| of which to | | | | | | |
| South West Asia | 0.3 | 0.2 | . | 0.1 | 1.0 | 0.5 |
| British Indies | 0.3 | 0.1 | — | 0.9 | 0.8 | 0.6 |
| Ceylon | — | — | . | — | — | — |
| Siam | 0.1 | — | . | 0.2 | 0.3 | 0.2 |
| Dutch East Indies | 0.1 | — | . | 0.1 | 0.1 | 0.1 |
| China | 0.1 | — | . | 0.9 | 0.3 | 0.5 |
| Japan | 0.1 | 0.9 | — | 3.0 | 1.7 | 1.3 |
| Australia | 0.1 | 0.2 | . | 1.2 | 1.4 | 0.8 |
| of which to | | | | | | |
| Australia | 0.1 | 0.2 | . | 1.1 | 1.1 | 0.6 |
| New Zealand | — | — | . | 0.1 | 0.2 | 0.1 |
| All Continents | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

*Table 23.*

## *Imports of Some Principal Commodities into the Northern Countries in 193: Special Trade.*

*A. Quantity in tons.*

| Species | Denmark | Finland | Iceland[1] | Norway | Sweden | Total |
|---|---|---|---|---|---|---|
| 1. *Foodstuffs and Beverages:* | | | | | | |
| Cereals: | | | | | | |
| Wheat | 361 200 | 59 200 | 200 | 183 300 | 42 600 | 646 500 |
| Rye | 187 100 | 26 600 | 300 | 140 600 | 1 200 | 355 800 |
| Maize | 213 000 | 53 200 | 1 800 | 122 100 | 43 000 | 433 100 |
| Oilcake and meal | 603 300 | 51 900 | 300 | 52 000 | 200 400 | 907 900 |
| Fruit, fresh: | | | | | | |
| Oranges | 9 000 | 5 500 | 400 | 20 800 | 35 000 | 75 800 |
| Lemons | 2 200 | 500 | — | | 2 400 | |
| Apples | 1 100 | 2 000 | 300 | 2 400 | 12 900 | 18 700 |
| Bananas | 2 700 | 1 800 | 100 | 6 600 | 8 300 | 19 500 |
| Fruit, dried: | | | | | | |
| Prunes | 4 500 | 1 300 | 100 | 1 900 | 4 600 | 12 400 |
| Raisins and currants | 1 700 | 1 700 | 100 | 2 600 | 3 100 | 9 200 |
| Apricots | 400 | · | — | 500 | 800 | 1 700 |
| Sugar | 56 800 | 79 300 | 4 500 | 86 500 | 9 900 | 237 000 |
| Salt | 79 100 | 101 300 | 70 500 | 197 700 | 169 500 | 618 100 |
| Coffee | 25 200 | 17 300 | 400 | 20 100 | 48 500 | 111 500 |
| Cocoa, raw | 4 600 | 100 | 100 | 3 000 | 5 700 | 13 500 |
| Spirits | · | · | · | · | · | · |
| Wines | · | · | · | · | · | · |
| 2. *Oil seeds and kernels:* | | | | | | |
| Soya beans | 259 900 | — | · | 15 700 | 100 800 | 376 400 |
| Copra | 81 600 | — | · | 35 400 | 26 500 | 143 500 |
| Palm kernels | 41 000 | — | · | 100 | — | 41 100 |
| Ground nuts | 36 200 | — | · | 5 800 | 1 200 | 43 200 |
| Linseed | 25 500 | 3 700 | · | 24 300 | 41 600 | 95 100 |
| 3. *Animal oils:* | | | | | | |
| Train oil | 44 200 | 900 | · | 26 700 | 1 400 | 73 200 |
| 4. *Fertilizers:* | | | | | | |
| Crude phosphate | 199 200 | 35 700 | — | 20 500 | 154 500 | 409 900 |
| Superphosphate | 22 000 | 35 700 | 900 | 40 100 | 14 100 | 112 800 |
| Nitrate of lime | 95 500 | 22 800 | 800 | — | 54 000 | 173 100 |
| Chile saltpetre | 45 700 | 5 500 | — | — | 41 600 | 92 800 |
| Ammonia, sulphuric | 38 700 | 2 900 | — | — | 1 700 | 43 300 |
| Potash 37—40 % | 73 300 | 27 400 | — | 48 600 | 65 300 | 214 600 |

[1]) 1934.

*Table 23 (cont.).*

## *Imports of Some Principal Commodities into the Northern Countries in 1935. Special Trade.*

*B. Value in £ 1 000.*

| Species | Denmark | Finland | Iceland [1] | Norway | Sweden | Total |
|---|---|---|---|---|---|---|
| 1. *Foodstufs and Beverages:* | | | | | | |
| Cereals: | | | | | | |
| Wheat | 2 009 | 397 | — | 1 131 | 330 | 3 867 |
| Rye | 692 | 174 | — | 613 | 5 | 1 484 |
| Maize | 920 | 228 | 13 | 538 | 191 | 1 890 |
| Oilcake and meal | 3 339 | 305 | — | 317 | 1 098 | 5 059 |
| Fruit, fresh: | | | | | | |
| Oranges | 147 | 111 | 9 | 392 | 639 | 1 412 |
| Lemons | 45 | 12 | — | | 57 | |
| Apples | 27 | 47 | 9 | 65 | 314 | 462 |
| Bananas | 62 | 46 | 4 | 141 | 237 | 490 |
| Fruit, dried: | | | | | | |
| Prunes | 112 | 33 | 4 | 40 | 119 | 308 |
| Raisins and currants | 54 | 42 | 4 | 70 | 88 | 258 |
| Apricots | 31 | · | — | 30 | 52 | 113 |
| Sugar | 268 | 477 | 45 | 603 | 46 | 1 439 |
| Salt | 174 | 90 | 81 | 211 | 263 | 819 |
| Coffee | 1 125 | 754 | 23 | 920 | 2 402 | 5 224 |
| Cocoa, raw | 125 | 5 | — | 75 | 144 | 349 |
| Spirits | 121 | 140 | — | 221 | 320 | 802 |
| Wines | 254 | 71 | 18 | 362 | 433 | 1 138 |
| 2. *Oil seeds and kernels:* | | | | | | |
| Soya beans | 1 692 | — | · | 101 | 650 | 2 443 |
| Copra | 862 | — | · | 412 | 278 | 1 552 |
| Palm kernels | 353 | — | · | — | — | 353 |
| Ground nuts | 415 | — | · | 75 | 15 | 505 |
| Linseed | 241 | 35 | · | 231 | 392 | 899 |
| 3. *Animal oils:* | | | | | | |
| Train oil | 522 | 19 | · | 302 | 36 | 879 |
| 4. *Fertilizers:* | | | | | | |
| Crude phosphate | 335 | 79 | — | 40 | 323 | 777 |
| Superphosphate | 62 | 100 | 13 | 101 | 36 | 312 |
| Nitrate of lime | 612 | 156 | 4 | — | 397 | 1 169 |
| Chile saltpetre | 277 | 37 | — | — | 330 | 644 |
| Ammonia, sulphuric | 241 | 18 | — | — | 9 | 268 |
| Potash 37—40 % | 371 | 106 | — | 201 | 314 | 992 |

[1]) 1934.

*Table 23 (cont.).*

*Imports of Some Principal Commodities into the Northern Countries in 1935. Special Trade.*

*A. Quantity in tons.*

| Species | Denmark | Finland | Iceland [1] | Norway | Sweden | Total |
|---|---|---|---|---|---|---|
| 5. *Rubber and Rubber Goods* | 7 000 | 3 400 | 100 | 2 900 | 9 700 | 23 100 |
| 6. *Hides and Skins, raw* .. | 8 000 | 10 100 | — | 5 000 | 19 100 | 42 200 |
| 7. *Textiles:* | | | | | | |
| Materials for spinning: | | | | | | |
| Wool ..... | 2 000 | 2 400 | — | 1 000 | 8 600 | 14 000 |
| Cotton ..... | 7 600 | 12 500 | — | 2 900 | 27 800 | 50 800 |
| Hemp ..... | 8 900 | 2 200 | — | 4 000 | 7 800 | 22 900 |
| Yarns and thread: | | | | | | |
| Silk ..... | 1 300 | 300 | — | 400 | 2 000 | 4 000 |
| Wool ..... | 1 700 | 600 | — | 1 500 | 2 900 | 6 700 |
| Cotton, flax etc. .... | 2 700 | 1 300 | — | 6 500 | 4 600 | 15 100 |
| Drapery goods: | | | | | | |
| Silk ..... | . | . | . | . | . | . |
| Wool ..... | . | . | . | . | . | . |
| Vegetable materials .. | . | . | . | . | . | . |
| 8. *Clothing (including footwear)* ..... | . | . | . | . | . | . |
| 9. *Fuel:* | | | | | | |
| Coal ..... | 3 889 600 | 1 015 200 | 139 200 | 2 181 700 | 5 253 700 | 12 479 400 |
| Coke etc. ..... | 1 420 300 | 206 500 | 1 000 | 615 500 | 1 746 600 | 3 989 900 |
| Kerosene ..... | 68 800 | 46 000 | 3 100 | 39 400 | 108 500 | 265 800 |
| Petrol ..... | 243 900 | 76 600 | 5 900 | 138 700 | 381 100 | 846 200 |
| Solar oil etc. ..... | 228 800 | 18 300 | 9 000 | 254 400 | 291 000 | 801 500 |
| 10. *Minerals and manufactures thereof:* | | | | | | |
| Window-glass ..... | 10 500 | 1 100 [2] | 300 | 900 | 5 400 [2] | 18 200 |
| 11. *Metals and manufactures thereof* ..... | . | . | . | . | . | . |
| 12. *Machinery etc.* [3] ..... | . | . | . | . | . | . |
| 13. *Automobiles, complete and in parts for assembling* (number) ..... | 11 773 | 3 048 | 208 | 6 905 [4] | 10 309 [4] | 32 243 |

[1] 1934.

[2] Including plate-glass.

[3] The figures include: for Denmark and Iceland: machinery; for Finland and Norway: machinery, apparatus and the like; for Sweden: machinery, apparatus and electrical materials.

[4] Parts for assembling not included.

*Table 23 (cont.).*

*Imports of Some Principal Commodities into the Northern Countries in 1935. Special Trade.*

*B. Value in £ 1 000.*

| Species | Denmark | Finland | Iceland [1] | Norway | Sweden | Total |
|---|---|---|---|---|---|---|
| 5. *Rubber and Rubber Goods* | 629 | 311 | 18 | 342 | 974 | 2 274 |
| 6. *Hides and Skins, raw* .. | 393 | 539 | — | 286 | 1 031 | 2 249 |
| 7. *Textiles:* | | | | | | |
| Materials for spinning: | | | | | | |
| Wool ..... | 286 | 381 | — | 151 | 1 118 | 1 936 |
| Cotton ..... | 460 | 807 | — | 171 | 1 737 | 3 175 |
| Hemp ..... | 174 | 40 | — | 101 | 155 | 470 |
| Yarns and thread: | | | | | | |
| Silk ..... | 388 | 101 | — | 126 | 737 | 1 352 |
| Wool ..... | 527 | 197 | 4 | 508 | 1 041 | 2 277 |
| Cotton, flax etc. .... | 589 | 272 | 4 | 905 | 1 160 | 2 930 |
| Drapery goods: | | | | | | |
| Silk ..... | 723 | | | 491 | | |
| Wool ..... | 1 714 | | 189 | 968 | | |
| Vegetable materials .. | 2 442 | 1 607 | | 1 937 | 6 712 | 18 681 |
| 8. *Clothing (including footwear)* ..... | 857 | | 193 | 848 | | |
| 9. *Fuel:* | | | | | | |
| Coal ..... | 3 370 | 790 | 166 | 1 899 | 4 438 | 10 663 |
| Coke etc. ..... | 1 803 | 244 | — | 874 | 2 062 | 4 983 |
| Kerosene ..... | 254 | 167 | 13 | 146 | 400 | 980 |
| Petrol ..... | 1 143 | 407 | 36 | 658 | 1 717 | 3 961 |
| Solar oil etc. ..... | 518 | 62 | 36 | 533 | 675 | 1 824 |
| 10. *Minerals and manufactures thereof:* | | | | | | |
| Window-glass ..... | 147 | 31 [2] | 9 | 15 | 160 [2] | 362 |
| 11. *Metals and manufactures thereof* ..... | 7 169 | 3 702 | 256 | 5 553 | 9 264 | 25 944 |
| 12. *Machinery etc.* [3] ..... | 1 433 | 2 445 | 95 | 3 035 | 5 743 | 12 751 |
| 13. *Automobiles, complete and in parts for assembling* ..... | 1 027 | 508 | 27 | 922 [4] | 2 428 | 4 912 |

[1] 1934.

[2] Including plate-glass.

[3] The figures include: for Denmark and Iceland: machinery; for Finland and Norway: machinery, apparatus and the like; for Sweden: machinery, apparatus and electrical materials.

[4] Parts for assembling not included.

*Table 24.*

## *Imports into the Northern Countries in 1935 according to Countries of Purchase.*

*A. Value in £ 1 000.*

| Country of purchase | Denmark [1] | Finland | Iceland [1] | Norway [1] | Sweden | Total |
|---|---|---|---|---|---|---|
| Europe | 51 746 | 20 254 | 1 876 | 33 532 | 61 072 | 168 480 |
| of which from | | | | | | |
| Denmark | — | 991 | 397 | 2 668 | 4 948 | 9 004 |
| Finland | 1 013 | — | 9 | 231 | 928 | 2 181 |
| Iceland | 165 | — | — | 181 | 263 | 609 |
| Norway | 1 495 | 427 | 189 | — | 2 577 | 4 688 |
| Sweden | 4 013 | 2 638 | 135 | 4 377 | — | 11 163 |
| Germany | 13 045 | 4 793 | 284 | 7 181 | 18 434 | 43 737 |
| Great Britain | 21 393 | 5 687 | 559 | 9 654 | 14 701 | 51 994 |
| U.S.S.R. | 1 259 | 709 | — | 437 | 840 | 3 245 |
| Estonia | 76 | 425 | — | 60 | 237 | 798 |
| Latvia | 165 | 71 | — | 25 | 93 | 354 |
| Lithuania | 219 | 17 | — | 25 | 98 | 359 |
| Poland—Danzig | 1 156 | 582 | 27 | 910 | 2 510 | 5 185 |
| Netherlands | 1 795 | 872 | 23 | 1 402 | 3 768 | 7 860 |
| Belgium—Luxemburg | 1 308 | 990 | 23 | 1 442 | 2 541 | 6 304 |
| France | 1 616 | 607 | — | 1 729 | 2 536 | 6 488 |
| Portugal | 205 | 26 | 5 | 246 | 237 | 719 |
| Spain | 607 | 132 | 113 | 668 | 763 | 2 283 |
| Italy | 402 | 249 | 95 | 573 | 1 180 | 2 499 |
| Switzerland | 567 | 344 | — | 332 | 1 175 | 2 418 |
| Czechoslovakia | 496 | 366 | 4 | 709 | 1 479 | 3 054 |
| Austria | 183 | 200 | — | 221 | 469 | 1 073 |
| Hungary | 94 | 50 | — | 131 | 263 | 538 |
| Roumania | 228 | 20 | — | 5 | 15 | 268 |
| Turkey | 18 | 10 | — | 50 | 139 | 217 |
| Greece | 45 | 43 | — | 30 | 753 | 871 |
| America | 5 799 | 2 978 | 45 | 6 824 | 13 329 | 28 975 |
| of which from | | | | | | |
| Canada | 169 | 175 | — | 1 141 | 129 | 1 614 |
| U.S.A. | 3 116 | 1 783 | 32 | 3 643 | 9 738 | 18 312 |
| Brazil | 634 | 583 | 13 | 171 | 1 505 | 2 906 |

[1] Total imports.

*Table 24 (cont.).*

## *Imports into the Northern Countries in 1935 according to Countries of Purchase.*

*B. Percentage.*

| Country of purchase | Denmark [1] | Finland | Iceland [1] | Norway [1] | Sweden | Total |
|---|---|---|---|---|---|---|
| Europe | 87.1 | 86.0 | 97.7 | 81.0 | 80.3 | 83.3 |
| of which from | | | | | | |
| Denmark | — | 4.2 | 20.6 | 6.4 | 6.5 | 4.5 |
| Finland | 1.7 | — | 0.5 | 0.6 | 1.2 | 1.1 |
| Iceland | 0.3 | — | — | 0.4 | 0.4 | 0.3 |
| Norway | 2.5 | 1.8 | 9.8 | — | 3.4 | 2.3 |
| Sweden | 6.8 | 11.2 | 7.0 | 10.6 | — | 5.5 |
| Germany | 22.0 | 20.4 | 14.8 | 17.3 | 24.2 | 21.6 |
| Great Britain | 36.0 | 24.2 | 29.1 | 23.3 | 19.4 | 25.7 |
| U.S.S.R. | 2.1 | 3.0 | — | 1.1 | 1.1 | 1.6 |
| Estonia | 0.1 | 1.8 | — | 0.1 | 0.3 | 0.4 |
| Latvia | 0.3 | 0.3 | — | 0.1 | 0.1 | 0.2 |
| Lithuania | 0.4 | 0.1 | — | 0.1 | 0.1 | 0.2 |
| Poland—Danzig | 1.9 | 2.5 | 1.4 | 2.2 | 3.3 | 2.6 |
| Netherlands | 3.0 | 3.7 | 1.2 | 3.4 | 5.0 | 3.9 |
| Belgium—Luxemburg | 2.2 | 4.2 | 1.2 | 3.5 | 3.3 | 3.1 |
| France | 2.7 | 2.6 | — | 4.2 | 3.3 | 3.2 |
| Portugal | 0.3 | 0.1 | 0.3 | 0.6 | 0.3 | 0.4 |
| Spain | 1.0 | 0.6 | 5.9 | 1.6 | 1.0 | 1.1 |
| Italy | 0.7 | 1.0 | 4.9 | 1.4 | 1.6 | 1.2 |
| Switzerland | 1.0 | 1.5 | — | 0.8 | 1.5 | 1.2 |
| Czechoslovakia | 0.8 | 1.5 | 0.2 | 1.7 | 1.9 | 1.5 |
| Austria | 0.3 | 0.8 | — | 0.5 | 0.6 | 0.5 |
| Hungary | 0.2 | 0.2 | — | 0.3 | 0.4 | 0.3 |
| Roumania | 0.4 | 0.1 | — | — | — | 0.1 |
| Turkey | — | — | — | 0.1 | 0.2 | 0.1 |
| Greece | 0.1 | 0.2 | — | 0.1 | 1.0 | 0.4 |
| America | 9.8 | 12.7 | 2.3 | 16.5 | 17.5 | 14.3 |
| of which from | | | | | | |
| Canada | 0.3 | 0.7 | — | 2.3 | 0.2 | 0.8 |
| U.S.A. | 5.3 | 7.6 | 1.7 | 8.3 | 12.3 | 9.1 |
| Brazil | 1.1 | 2.5 | 0.7 | 0.4 | 2.0 | 1.4 |

[1]) Total imports.

*Table. 24 (cont.).*

## *Imports into the Northern Countries in 1935 according to Countries of Purchase.*

*A. Value in £ 1000.*

| Country of purchase | Denmark [1] | Finland | Iceland [1] | Norway [1] | Sweden | Total |
|---|---|---|---|---|---|---|
| Argentine | 897 | 329 | — | 1 352 | 1 149 | 3 727 |
| Venezuela | 228 | 19 | — | 35 | 26 | 308 |
| Africa | 370 | 30 | — | 266 | 459 | 1 125 |
| of which from | | | | | | |
| Morocco | 246 | 1 | — | 40 | 10 | 297 |
| Union of South Africa | 9 | 2 | — | 15 | 113 | 139 |
| Asia | 1 429 | 257 | 4 | 729 | 1 010 | 3 429 |
| of which from | | | | | | |
| South West Asia | 54 | 27 | — | 80 | 160 | 321 |
| British Indies | 120 | 133 | — | 221 | 268 | 779 |
| Ceylon | 27 | | — | 10 | | |
| Dutch East Indies | 558 | — | — | 30 | 36 | 624 |
| China | 420 | 4 | — | 95 | 77 | 596 |
| Japan | 71 | 86 | 4 | 201 | 459 | 821 |
| Australia | 40 | 25 | — | 45 | 227 | 337 |
| of which from | | | | | | |
| Australia | 31 | 24 | — | 30 | 206 | 291 |
| New Zealand | 9 | 1 | — | 5 | 21 | 36 |
| All Continents | 59 384 | 23 544 | 1 925 | 41 396 | 76 097 | 202 346 |

[1]) Total imports.

*Table 24 (cont.).*

## *Imports into the Northern Countries in 1935 according to Countries of Purchase.*

*B. Percentage.*

| Country of purchase | Denmark [1] | Finland | Iceland [1] | Norway [1] | Sweden | Total |
|---|---|---|---|---|---|---|
| Argentine | 1.5 | 1.4 | — | 3.3 | 1.5 | 1.8 |
| Venezuela | 0.4 | 0.1 | — | 0.1 | — | 0.2 |
| Africa | 0.6 | 0.1 | — | 0.6 | 0.6 | 0.5 |
| of which from | | | | | | |
| Morocco | 0.4 | — | — | 0.1 | — | 0.1 |
| Union of South Africa | — | — | — | — | 0.1 | 0.1 |
| Asia | 2.4 | 1.1 | — | 1.8 | 1.3 | 1.7 |
| of which from | | | | | | |
| South West Asia | 0.1 | 0.1 | — | 0.2 | 0.2 | 0.2 |
| British Indies | 0.2 | 0.6 | — | 0.5 | 0.4 | 0.4 |
| Ceylon | — | | — | — | | |
| Dutch East Indies | 0.9 | — | — | 0.1 | — | 0.3 |
| China | 0.7 | — | — | 0.2 | 0.1 | 0.3 |
| Japan | 0.1 | 0.4 | 0.2 | 0.5 | 0.6 | 0.4 |
| Australia | 0.1 | 0.1 | — | 0.1 | 0.3 | 0.2 |
| of which from | | | | | | |
| Australia | 0.1 | 0.1 | — | 0.1 | 0.3 | 0.1 |
| New Zealand | — | — | — | — | — | — |
| All Continents | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

[1]) Total imports.

*Table 25.*

*Imports into Different Countries from the Northern*

*Percentage of total Im-*

| No. | Importing country | Denmark | Finland | Iceland | Norway | Sweden | Northern C. Total |
|---|---|---|---|---|---|---|---|
| 1 | Poland—Danzig ..... | 1.2 | 0.2 | 0.1 | 1.1 | 2.8 | 4.9 |
| 2 | Czechoslovakia ..... | 0.7 | 0.2 | — | 0.7 | 2.2 | 3.8 |
| 3 | Germany ..... | 2.9 | 1.0 | 0.1 | 2.3 | 3.7 | 10.0 |
| 4 | Netherlands ..... | 0.5 | 0.6 | — | 0.6 | 1.5 | 3.2 |
| 5 | Belgium—Luxemburg .. | 0.6 | 1.6 | — | 0.9 | 1.4 | 4.5 |
| 6 | Great Britain and Northern Ireland ..... | 4.2 | 2.0 | — | 1.1 | 2.2 | 9.5 |
| 7 | France ..... | 0.2 | 0.7 | — | 0.6 | 1.3 | 2.8 |
| 8 | Portugal ..... | 0.6 | — | 2.1 | 1.7 | 1.0 | 5.4 |
| 9 | Spain ..... | 1.2 | 0.6 | 0.5 | 1.6 | 2.9 | 6.8 |
| 10 | Italy ..... | 0.3 | 0.4 | 0.2 | 0.6 | 1.3 | 2.8 |
| 11 | U. S. A. ..... | 0.1 | 0.6 | 0.1 | 0.8 | 2.0 | 3.6 |
| 12 | Brazil ..... | 0.4 | 0.6 | 0.1 | 0.3 | 1.2 | 2.6 |
| 13 | Argentine ..... | 0.1 | 0.9 | — | 0.7 | 1.7 | 3.4 |
| 14 | Japan ..... | — | 0.2 | — | 0.8 | 0.9 | 1.9 |

*Table 26.*

*Exports from Different Countries into the Northern*

*Percentage of total Ex-*

| No. | Exporting country | Denmark | Finland | Iceland | Norway | Sweden | Northern C. Total |
|---|---|---|---|---|---|---|---|
| 1 | Poland—Danzig ..... | 3.0 | 1.7 | 0.1 | 2.0 | 5.4 | 12.2 |
| 2 | Czechoslovakia ..... | 0.9 | 0.5 | — | 1.0 | 2.4 | 4.8 |
| 3 | Germany ..... | 3.3 | 1.1 | 0.1 | 2.0 | 4.8 | 11.3 |
| 4 | Netherlands ..... | 0.5 | 0.7 | — | 1.1 | 3.0 | 5.3 |
| 5 | Belgium—Luxemburg .. | 0.8 | 0.7 | — | 1.1 | 2.0 | 4.6 |
| 6 | Great Britain and Northern Ireland ..... | 3.0 | 1.0 | 0.1 | 1.5 | 2.2 | 7.8 |
| 7 | France ..... | 0.8 | 0.3 | — | 0.6 | 1.2 | 2.9 |
| 8 | Portugal ..... | 1.7 | — | — | 1.4 | 1.4 | 4.5 |
| 9 | Spain ..... | — | — | 0.1 | 1.5 | 1.5 | 3.1 |
| 10 | Italy ..... | 0.6 | 0.3 | 0.1 | 0.6 | 1.5 | 3.1 |
| 11 | U. S. A. ..... | 0.5 | 0.3 | — | 0.6 | 1.7 | 3.1 |
| 12 | Brazil ..... | 0.9 | 0.9 | — | 0.4 | 1.9 | 4.1 |
| 13 | Argentine ..... | 1.3 | 0.4 | — | 1.1 | 0.9 | 3.7 |
| 14 | Japan ..... | 0.1 | 0.1 | — | 0.2 | 0.3 | 0.7 |

*Countries and Some Other Countries in 1935.*

*ports into each Country.*

| Germany | Nether-lands | Belgium | Great Britain | France | Italy | U. S. A. | Brazil | Argen-tine | Japan | No. |
|---|---|---|---|---|---|---|---|---|---|---|
| 14.4 | 3.3 | 3.0 | 13.6 | 4.9 | 3.0 | 14.3 | 1.7 | 1.9 | 0.2 | 1 |
| 17.0 | 3.2 | 2.2 | 4.8 | 5.4 | 3.0 | 9.8 | 1.0 | 2.2 | 0.5 | 2 |
| — | 4.7 | 3.0 | 6.2 | 3.7 | 4.5 | 5.8 | 4.3 | 3.4 | 0.5 | 3 |
| 25.6 | — | 11.0 | 9.3 | 4.7 | 1.3 | 6.9 | 1.1 | 7.9 | 0.8 | 4 |
| 12.3 | 9.4 | — | 7.9 | 15.7 | 1.1 | 7.6 | 1.5 | 7.2 | 0.4 | 5 |
| 4.0 | 3.0 | 2.0 | — | 2.8 | 1.1 | 11.6 | 1.0 | 5.8 | 1.3 | 6 |
| 8.3 | 2.5 | 6.7 | 7.5 | — | 1.9 | 8.5 | 1.7 | 1.9 | 0.9 | 7 |
| 12.5 | 3.4 | 7.9 | 25.7 | 5.5 | 2.4 | 11.4 | 2.9 | 0.6 | — | 8 |
| 13.7 | 3.6 | 3.4 | 10.4 | 5.6 | 3.0 | 16.8 | 0.5 | 2.5 | 0.4 | 9 |
| 18.3 | 1.8 | 2.8 | 7.3 | 6.0 | — | 11.3 | 1.4 | 3.8 | 0.4 | 10 |
| 3.8 | 2.0 | 2.0 | 7.6 | 2.8 | 1.9 | — | 4.9 | 3.2 | 7.5 | 11 |
| 20.4 | 4.1 | 5.8 | 12.4 | 3.4 | 2.5 | 23.4 | — | 12.9 | 0.9 | 12 |
| 9.1 | 1.8 | 6.4 | 21.2 | 4.5 | 4.3 | 14.4 | 5.0 | — | 4.1 | 13 |
| 4.9 | 0.2 | 1.0 | 3.3 | 0.8 | 0.2 | 32.8 | 0.2 | 0.6 | — | 14 |

*Countries and Some Other Countries in 1935.*

*ports from each Country.*

| Germany | Nether-lands | Belgium | Great Britain | France | Italy | U. S. A. | Brazil | Argen-tine | Japan | No. |
|---|---|---|---|---|---|---|---|---|---|---|
| 15.1 | 3.8 | 6.2 | 19.6 | 3.5 | 3.2 | 4.7 | 0.5 | 1.4 | 0.5 | 1 |
| 14.9 | 3.6 | 2.0 | 6.9 | 4.0 | 2.6 | 7.7 | 0.6 | 1.3 | 0.3 | 2 |
| — | 9.5 | 4.7 | 8.8 | 5.9 | 6.5 | 4.0 | 2.8 | 2.3 | 1.9 | 3 |
| 19.2 | — | 10.7 | 21.1 | 7.0 | 2.3 | 4.9 | 0.4 | 1.1 | 0.3 | 4 |
| 9.8 | 11.6 | — | 14.9 | 18.4 | 2.7 | 6.0 | 1.1 | 3.7 | 0.9 | 5 |
| 5.5 | 2.9 | 2.7 | — | 4.9 | 1.7 | 6.3 | 1.0 | 3.2 | 0.9 | 6 |
| 6.8 | 3.0 | 11.7 | 10.4 | — | 3.8 | 4.6 | 0.7 | 2.0 | 0.6 | 7 |
| 13.7 | 1.8 | 6.1 | 23.5 | 9.9 | 2.9 | 5.5 | 4.0 | 0.3 | 0.5 | 8 |
| 12.7 | 5.1 | 5.0 | 21.7 | 11.7 | 3.3 | 9.5 | 0.6 | 5.4 | 0.5 | 9 |
| 16.4 | 2.3 | 2.3 | 8.3 | 5.9 | — | 8.1 | 1.4 | 3.1 | 0.4 | 10 |
| 4.0 | 2.1 | 2.5 | 19.0 | 5.1 | 3.2 | — | 1.9 | 2.1 | 8.9 | 11 |
| 16.5 | 3.6 | 3.3 | 9.2 | 8.1 | 2.7 | 39.4 | — | 4.9 | 0.5 | 12 |
| 6.9 | 9.0 | 8.7 | 34.0 | 4.3 | 4.1 | 12.1 | 4.8 | — | 1.0 | 13 |
| 1.1 | 0.7 | 0.6 | 4.3 | 1.7 | 0.3 | 21.4 | 0.2 | 1.2 | — | 14 |

*Table 27.*

## *The Merchant Marine, July 1, 1913, 1930 and 1936.*

*Tonnage in 1 000 gross tons.*

| Country | Tonnage 1913 | Tonnage 1930 | 1936 | | Of which oil tankers in 1936 [3] | |
|---|---|---|---|---|---|---|
| | | | Tonnage | Per cent. of world tonnage | Tonnage | Per cent. of world tonnage |
| Denmark .. Total | 762 | 1 087 | 1 136 | 1.8 | 104 | 1.1 |
| Of which steamers | 711 | 718 | 610 | 1.2 | 18 | 0.4 |
| motorsh. | | 353 | 524 | 4.2 | 86 | 2.1 |
| Finland .... Total | · | 313 | 481 | 0.7 | . | . |
| Of which steamers | · | 226 | 404 | 0.8 | . | . |
| motorsh. | · | 17 | 21 | 0.2 | . | . |
| Iceland [1] .. Total | · | 26 | 32 | 0.1 | — | — |
| Of which steamers | · | 25 | 31 | 0.1 | — | — |
| motorsh. | · | 1 | 1 | 0.01 | — | — |
| Norway .... Total | 2 458 | 3 668 | 4 055 | 6.2 | 1 658 | 18.0 |
| Of which steamers | 1 871 | 2 373 | 1 952 | 3.7 | 405 | 7.9 |
| motorsh. | | 1 290 | 2 102 | 17.1 | 1 253 | 30.7 |
| Sweden .... Total | 1 047 | 1 625 | 1 515 | 2.3 | 117 | 1.3 |
| Of which steamers | 944 | 1 117 | 920 | 1.8 | — | — |
| motorsh. | | 478 | 587 | 4.7 | 117 | 2.9 |
| *Northern countries* Total | 4 267 [2] | 6 719 | 7 219 | 11.1 | 1 879 | 20.4 |
| Of which steamers | 3 526 [2] | 4 459 | 3 917 | 7.6 | 423 | 8.3 |
| motorsh. | | 2 139 | 3 235 | 26.3 | 1 456 | 35.7 |
| World..... Total | 46 953 | 69 607 | 65 064 | 100.0 | 9 195 | 100.0 |
| Of which steamers | 43 079 | 59 926 | 51 714 | 100.0 | 5 119 | 100.0 |
| motorsh. | | 8 096 | 12 291 | 100.0 | 4 076 | 100.0 |

Vessels above 100 gross tons.

[1]) The figures for Iceland refer to January 1, 1930 and 1936.

[2]) Without Finland and Iceland.

[3]) Only tankers above 1 000 gross tons.

*Table 28.*

## *Tonnage of Steamers and Motorships according to Certain Divisions of Age, July 1, 1936.*

*Tonnage in 1 000 gross tons.*

| Country | Total | | Of which | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 0—5 years | | 5—10 years | | 10—20 years | |
| | Tonnage | Per cent. | Tonnage | Per cent. | Tonnage | Per cent. | Tonnage | Per cent. |
| Denmark ..... | 1 134 | 100.0 | 125 | 11.0 | 268 | 23.6 | 452 | 39.9 |
| Finland [1]) ..... | 408 | 100.0 | 9 | 2.2 | 17 | 4.2 | 73 | 17.9 |
| Iceland [1]) ..... | 32 | 100.0 | 0.6 | 1.9 | 7 | 21.9 | 13 | 40.6 |
| Norway ..... | 4 054 | 100.0 | 513 | 12.7 | 1 364 | 33.6 | 1 427 | 35.2 |
| Sweden ..... | 1 507 | 100.0 | 95 | 6.3 | 272 | 18.0 | 528 | 35.0 |
| *Northern Countries* .. | 7 135 | 100.0 | 743 | 10.4 | 1 928 | 27.0 | 2 493 | 34.9 |
| World ..... Total | 64 005 | 100.0 | 4 921 | 7.7 | 12 004 | 18.8 | 29 212 | 45.6 |

*Table 29.*

## *Tonnage of Steamers and Motorships according to Certain Divisions of Size, July 1, 1936.*

*Tonnage in 1 000 gross tons.*

| Country | Total | | Of which | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Less than 2 000 tons | | 2 000—6 000 tons | | 6 000—10 000 tons | |
| | Tonnage | Per cent. | Tonnage | Per cent. | Tonnage | Per cent. | Tonnage | Per cent. |
| Denmark ..... | 1 134 | 100.0 | 448 | 39.5 | 417 | 36.8 | 216 | 19.0 |
| Finland [1]) ..... | 408 | 100.0 | 164 | 40.2 | 237 | 58.1 | 6 | 1.5 |
| Iceland [1]) ..... | 32 | 100.0 | 32 | 100.0 | — | — | — | — |
| Norway ..... | 4 054 | 100.0 | 837 | 20.6 | 1 535 | 37.9 | 1 513 | 37.3 |
| Sweden ..... | 1 507 | 100.0 | 682 | 45.3 | 575 | 38.2 | 160 | 10.6 |
| *Northern Countries* .. | 7 135 | 100.0 | 2 163 | 30.3 | 2 764 | 38.7 | 1 895 | 26.6 |
| World ..... Total | 64 005 | 100.0 | 10 324 | 16.1 | 27 848 | 43.5 | 18 242 | 28.5 |

[1]) The figures for Finland and Iceland refer to January 1, 1936.

*Table 30.*

*Navigation to Different Countries in 1934 [1]). Foreign Trade.*

*Tonnage in*

| No. | Country of destination | Total | Danish | | Finnish | |
|---|---|---|---|---|---|---|
| | | Tonnage | Tonnage | Per cent. | Tonnage | Per cent. |
| 1 | Denmark [2]) | 8 873 | 3 852 | 43.4 | 370 | 4.2 |
| 2 | Finland [3]) | 5 381 | 372 | 6.9 | 1 597 | 29.7 |
| 3 | Iceland | 267 | 45 | 16.9 | 0.3 | 0.1 |
| 4 | Norway | 6 915 | 496 | 7.2 | 30 | 0.4 |
| 5 | Sweden [2]) [4]) | 10 600 | 1 002 | 9.5 | 366 | 3.5 |
| 6 | Belgium—Luxemburg [4]) | 22 128 | 755 | 3.4 | 233 | 1.1 |
| 7 | Danzig | 3 175 | 509 | 16.0 | 168 | 5.3 |
| 8 | Estonia | 942 | 54 | 5.7 | 151 | 16.0 |
| 9 | France | 54 356 | 762 | 1.4 | . | . |
| 10 | Greece | 6 177 | 39 | 0.6 | 11 | 0.2 |
| 11 | Irish Free State | 8 726 | 192 | 2.2 | 32 | 0.4 |
| 12 | Italy | 20 595 | 247 | 1.2 | . | . |
| 13 | Latvia | 1 463 | 136 | 9.3 | 26 | 1.8 |
| 14 | Netherlands | 26 149 | 624 | 2.4 | 259 | 1.0 |
| 15 | Poland (Gdynia) | 4 142 | 429 | 10.4 | 220 | 5.3 |
| 16 | Spain [5]) | 31 769 | 674 | 2.1 | 82 | 0.3 |
| 17 | Great Britain | 85 359 | 3 119 | 3.7 | 1 205 | 1.4 |
| 18 | Germany | 29 255 | 1 785 | 6.1 | 218 | 0.7 |
| 19 | Union of South Africa | 5 556 | 10 | 0.2 | 1 | — |
| 20 | U. S. A. [6]) | 53 132 | 861 | 1.6 | 26 | — |
| 21 | Canada [6]) | 28 512 | 527 | 1.8 | 57 | 0.2 |
| 22 | Chile | 1 611 | 18 | 1.1 | 6 | 0.4 |
| 23 | British Indies | 8 464 | 32 | 0.4 | — | — |
| 24 | Australia | 5 353 | 76 | 1.4 | . | . |
| 25 | New Zealand | 2 633 | 5 | 0.2 | — | — |
| 26 | Japan | 65 981 | 602 | 0.9 | — | — |
| 27 | China | 22 466 | 411 | 1.8 | . | . |

[1]) For some countries 1933.

[2]) Exclusive of ferry traffic.

[3]) Including trade on the Ladoga.

[4]) For the sake of comparison the figures in the Swedish and Belgian statistics have been reduced by 20.6 and 15 per cent. respectively as these countries have not the same rules as the other countries for measurement of the tonnage.

## — *Tonnage of Vessels Arrived with Cargo and in Ballast.*

*1 000 net tons.*

| Icelandic | | Norwegian | | Swedish | | Northern Vessels Total | | Vessels carrying the colours of the respective countries | | No. |
|---|---|---|---|---|---|---|---|---|---|---|
| Tonnage | Per cent. | Tonnage | Per cent. | Tonnage | Per cent. | Tonnage | Per cent. | Tonnage | Per cent. | |
| 31 | — | 566 | 4.6 | 1 417 | 18.1 | 6 236 | 70.3 | 3 852 | 43.4 | 1 |
| — | — | 241 | 4.5 | 851 | 15.8 | 3 061 | 56.9 | 1 597 | 29.7 | 2 |
| 58 | 21.7 | 90 | 33.7 | 12 | 4.5 | 205 | 76.9 | 58 | 21.7 | 3 |
| 4 | 0.1 | 3 769 | 54.5 | 1 002 | 14.5 | 5 301 | 76.7 | 3 769 | 54.5 | 4 |
| 2 | — | 874 | 8.2 | 5 351 | 50.5 | 7 595 | 71.7 | 5 351 | 50.5 | 5 |
| 5 | — | 1 689 | 7.6 | 809 | 3.7 | 3 491 | 15.8 | 2 028 | 9.2 | 6 |
| . | . | 226 | 7.1 | 469 | 14.8 | 1 372 | 43.2 | 18 | 0.6 | 7 |
| — | — | 27 | 2.9 | 56 | 5.9 | 288 | 30.5 | 239 | 25.4 | 8 |
| . | . | 2 082 | 3.8 | 862 | 1.6 | 3 706 | 6.8 | 13 860 | 25.5 | 9 |
| 1 | — | 85 | 1.4 | 65 | 1.1 | 201 | 3.3 | 1 025 | 16 6 | 10 |
| . | . | 207 | 2.4 | 93 | 1.1 | 524 | 6.1 | 2 414 | 27.7 | 11 |
| . | . | 384 | 1.9 | 183 | 0.9 | 814 | 4.0 | 10 218 | 49.6 | 12 |
| . | . | 48 | 3.3 | 110 | 7.5 | 320 | 21.9 | 651 | 44.5 | 13 |
| 0.1 | — | 1 955 | 7.5 | 1 044 | 4.0 | 3 882 | 14.9 | 6 436 | 24.6 | 14 |
| . | . | 335 | 8.1 | 895 | 21.6 | 1 879 | 45.4 | 471 | 11.4 | 15 |
| 12 | — | 1 787 | 5.6 | 480 | 1.5 | 3 035 | 9.5 | 10 260 | 32.3 | 16 |
| . | . | 4 920 | 5.8 | 3 072 | 3.6 | 12 316 | 14.5 | 47 143 | 55.2 | 17 |
| — | — | 1 466 | 5.0 | 2 134 | 7.3 | 5 603 | 19.1 | 13 539 | 46.2 | 18 |
| — | — | 260 | 4.7 | 130 | 2.3 | 401 | 7.2 | 3 702 [7]) | 66.6 | 19 |
| — | — | 4 231 | 8.0 | 983 | 1.9 | 6 101 | 11.5 | 19 186 | 36.1 | 20 |
| — | — | 2 106 | 7.4 | 441 | 1.5 | 3 131 | 10.9 | 17 551 [7]) | 61.6 | 21 |
| — | — | 152 | 9.4 | 49 | 3.0 | 225 | 13.9 | 246 | 15.3 | 22 |
| — | — | 267 | 3.2 | 74 | 0.9 | 373 | 4.5 | 5 596 [7]) | 66.1 | 23 |
| . | . | 336 | 6.3 | 111 | 2.1 | 523 | 9.8 | 3 714 [7]) | 69.4 | 24 |
| — | — | 130 | 4.9 | 5 | 0.2 | 140 | 5.3 | 2 091 [7]) | 79.4 | 25 |
| — | — | 1 883 | 2.9 | 415 | 0.6 | 2 900 | 4.4 | 40 691 | 61.7 | 26 |
| . | . | 887 | 4.0 | 133 | 0.6 | 1 431 | 6.4 | 3 422 | 15.2 | 27 |

[5]) Unit of measurement: Toneladas de arqueo.
[6]) Lake trade not included.
[7]) British vessels.

*Table 31.*

*Balances of*

*Inward or credit movements in £ 1 000.*

| | Denmark | Finland | Norway | Sweden |
|---|---|---|---|---|
| I. *Merchandise:* | | | | |
| Merchandise | 56 562 | 27 489 | 30 352 | 66 907 |
| Adjustments | — | 44 | 1 960 [1] | 670 |
| Total | 56 562 | 27 533 | 32 312 | 67 577 |
| II. *Interest and Dividends:* | | | | |
| Interest on public debts | — | — | 151 | — |
| Other interest and dividends on long-term capital | — | — | 251 | 5 412 |
| Interest on short-term capital | 670 | 66 | 402 | 825 |
| Total | 670 | 66 | 804 | 6 237 |
| III. *Other Services:* | | | | |
| Shipping | 9 196 | 1 806 | 21 608 | 12 990 |
| Expenses of whaling companies abroad | — | — | — | — |
| Ships' stores and bunkers and port fees | 2 589 | 308 | 251 | 979 |
| Other transport fees | — | — | — | 155 |
| Commissions, insurance, brokerage | 1 429 | 573 | — | 515 |
| Post, telegraph and telephone | 134 | 44 | 50 | — |
| Immigrants' and emigrants' funds and remittances | 447 | 441 | 251 | 670 |
| Tourists' expenditure | 1 116 | 1 101 | 1 910 | 2 887 |
| Other items | 134 | 66 | 1 608 | 206 |
| Total | 15 045 | 4 339 | 25 678 | 18 402 |
| IV. *Gold:* | | | | |
| Gold coin and bullion | 1 384 | — | 603 | 7 062 |
| Change in earmarked gold | — | — | — | — |
| Total | 1 384 | — | 603 | 7 062 |
| Grand total | 73 661 | 31 938 | 59 397 | 99 278 |

*Note.* The figures for import and export do not always correspond with the figures in chapter VIII and IX. The figures in this table refer partly to general trade and for Norway the trade with Svalbard is excluded.

[1]) Whale oil sold from herding grounds.

*Payments in 1935.*

*Outward or debit movements in £ 1 000.*

| | Denmark | Finland | Norway | Sweden |
|---|---|---|---|---|
| I. *Merchandise:* | | | | |
| Merchandise | 59 330 | 23 472 | 41 206 | 76 289 |
| Adjustments | — | 22 | — | 721 |
| Total | 59 330 | 23 494 | 41 206 | 77 010 |
| II. *Interest and Dividends:* | | | | |
| Interest on public debts | 3 572 | 1 013 | 2 764 | 876 |
| Other interest and dividends on long-term capital | — | 595 | 905 | 258 |
| Interest on short-term capital | 1 339 | 154 | 653 | 619 |
| Total | 4 911 | 1 762 | 4 322 | 1 753 |
| III. *Other Services:* | | | | |
| Shipping | — | — | — | — |
| Expenses of whaling companies abroad | — | — | 603 | — |
| Ships' stores and bunkers and port fees | 3 303 | — | 10 804 | 6 289 |
| Other transport fees | — | — | — | — |
| Commissions, insurance, brokerage | 670 | 661 | [2]) | 567 |
| Post, telegraph and telephone | 134 | 66 | 151 | — |
| Immigrants' and emigrants' funds and remittances | 670 | 44 | [2]) | 103 |
| Tourists' expenditure | 1 339 | 1 057 | [2]) | 2 320 |
| Other items | 134 | 132 | 703 | 927 |
| Total | 6 250 | 1 960 | 12 261 | 10 206 |
| IV. *Gold:* | | | | |
| Gold coin and bullion | — | 53 | 3 266 | 10 309 |
| Change in earmarked gold | — | — | 50 | — |
| Total | — | 53 | 3 316 | 10 309 |
| Grand total | 70 491 | 27 269 | 61 105 | 99 278 |

[2]) Included in »other items».

*Table 31 (cont.).*

*Balances of*

*Inward or credit movements in £ 1 000.*

| | Denmark | Finland | Norway | Sweden |
|---|---|---|---|---|
| *Capital Items:* | | | | |
| I. Long-term operations: | | | | |
| Amortization ..... | — | — | — | 825 |
| Purchases and sales of: | | | | |
| a) domestic securities ..... | 937 | 3 260 | 1 357 | 3 917 |
| b) foreign securities ..... | 625 | — | 1 859 | 3 454 |
| New capital issues ..... | 223 | — | 2 513 | — |
| Other long-term investments | 447 | — | — | — |
| II. Short-term operations: | | | | |
| Change in short-term debts .. | — | 396 | — | 1 134 |
| Change in short-term assets | 1 473 | — | 503 | 2 938 |
| Total | 3 705 | 3 656 | 6 232 | 12 268 |

*Payments in 1935.*

*Outward or debit movements in £ 1 000.*

| | Denmark | Finland | Norway | Sweden |
|---|---|---|---|---|
| *Capital Items:* | | | | |
| I. Long-term operations: | | | | |
| Amortization ..... | 1 786 | — | — | — |
| Purchases and sales of: | | | | |
| a) domestic securities ..... | 759 | — | 3 317 | 1 959 |
| b) foreign securities ..... | 625 | — | 1 307 | 5 103 |
| New capital issues ..... | — | — | — | — |
| Other long-term investments | 670 | — | — | — |
| II. Short-term operations: | | | | |
| Change in short-term debts .. | 89 | — | 100 | 1 134 |
| Change in short-term assets | — | 1 454 | — | 5 258 |
| Total | 3 929 | 1 454 | 4 724 | 13 454 |

*Table 32.*

## *Net Balances of Payments.*

£ 1 000.

| | 1932 | 1933 | 1934 | 1935 |
|---|---|---|---|---|
| | Denmark | | | |
| I. *Merchandise:* | | | | |
| Merchandise | — 268 | — 2 386 | — 5 357 | — 2 768 |
| Whale oil sold from herding grounds | — | — | — | — |
| Total | — 268 | — 2 386 | — 5 357 | — 2 768 |
| II. *Interest and Dividends* | — 3 970 | — 3 242 | — 4 241 | — 4 241 |
| III. *Other Services:* | | | | |
| Shipping | + 5 258 | + 5 313 | + 5 402 | + 5 893 |
| Ships' stores and bunkers and port fees | + 2 682 | + 2 566 | + 2 455 | + 2 589 |
| Immigrants' and emigrants' funds and remittances | + 268 | + 225 | — | — |
| Tourist traffic | — 536 | — 450 | — | — 223 |
| Other items | — 54 | + 135 | + 446 | + 536 |
| Total | + 7 618 | + 7 789 | + 8 303 | + 8 795 |
| IV. *Gold* | + 1 073 | — | — | + 1 384 |
| Grand total | + 4 453 | + 2 161 | — 1 295 | + 3 170 |
| *Capital Items:* | | | | |
| Long-term | — 1 985 | — 2 521 | — 1 518 | — 1 608 |
| Short-term | — 3 058 | — 766 | + 2 902 | + 1 384 |
| Total | — 5 043 | — 3 287 | + 1 384 | — 224 |
| Corrections | + 590 | + 1 126 | — 89 | — 2 946 |

*Table 32 (cont.).*

## *Net Balances of Payments.*

£ 1 000.

| | 1932 | 1933 | 1934 | 1935 |
|---|---|---|---|---|
| | Finland | | | |
| I. *Merchandise:* | | | | |
| Merchandise | + 4 989 | + 6 035 | + 6 436 | + 4 039 |
| Whale oil sold from herding grounds | — | — | — | — |
| Total | + 4 989 | + 6 035 | + 6 436 | + 4 039 |
| II. *Interest and Dividends* | — 2 574 | — 2 335 | — 1 873 | — 1 696 |
| III. *Other Services:* | | | | |
| Shipping | + 1 325 | + 1 366 | + 1 697 | + 1 807 |
| Ships' stores and bunkers and port fees | + 221 | + 264 | + 308 | + 308 |
| Immigrants' and emigrants' funds and remittances | + 927 | + 595 | + 396 | + 396 |
| Tourist traffic | + 221 | + 44 | + 88 | + 44 |
| Other items | + 88 | — 22 | — 132 | — 176 |
| Total | + 2 782 | + 2 247 | + 2 357 | + 2 379 |
| IV. *Gold* | — | — | — 4 | — 53 |
| Grand total | + 5 197 | + 5 947 | + 6 916 | + 4 669 |
| *Capital Items:* | | | | |
| Long-term | — 883 | — 1 101 | — 2 291 | — 3 260 |
| Short-term | — 1 766 | — 3 260 | — 3 965 | + 1 057 |
| Total | — 2 649 | — 4 361 | — 6 256 | — 2 203 |
| Corrections | — 2 548 | — 1 586 | — 660 | — 2 466 |

*Table 32 (cont.).*

## *Net Balances of Payments.*

£ 1000.

| | 1932 | 1933 | 1934 | 1935 |
|---|---|---|---|---|
| | Norway | | | |
| I. *Merchandise:* | | | | |
| Merchandise | — 6 114 | — 5 268 | — 7 789 | — 10 854 |
| Whale oil sold from herding grounds | + 308 | + 1 824 | + 1 859 | + 1 960 |
| Total | — 5 806 | — 3 444 | — 5 930 | — 8 894 |
| II. *Interest and Dividends* | — 4 419 | — 4 204 | — 3 568 | — 3 518 |
| III. *Other Services:* | | | | |
| Shipping | + 9 659 | + 9 472 | + 10 151 | + 10 804 |
| Ships' stores and bunkers and port fees | + 257 | + 203 | + 201 | + 251 |
| Immigrants' and emigrants' funds and remittances | + 719 | + 354 | + 251 | + 251 |
| Tourist traffic | + 1 541 | + 1 520 | + 1 709 | + 1 910 |
| Other items | + 104 | + 151 | + 301 | + 201 |
| Total | + 12 280 | + 11 700 | + 12 613 | + 13 417 |
| IV. *Gold* | + 873 | + 152 | + 754 | — 2 714 |
| Grand total | + 2 928 | + 4 204 | + 3 869 | — 1 709 |
| *Capital Items:* | | | | |
| Long-term | + 206 | — 2 178 | + 1 206 | + 1 105 |
| Short-term | — 4 881 | — 1 975 | — 4 824 | + 403 |
| Total | — 4 675 | — 4 153 | — 3 618 | + 1 508 |
| Corrections | + 1 747 | — 51 | — 251 | + 201 |

*Table 32 (cont.).*

## *Net Balances of Payments.*

£ 1 000.

| | 1932 | 1933 | 1934 | 1935 |
|---|---|---|---|---|
| | Sweden | | | |
| I. *Merchandise:* | | | | |
| Merchandise | — 10 784 | — 789 | — 206 | — 9 433 |
| Whale oil sold from herding grounds | — | — | — | — |
| Total | — 10 784 | — 789 | — 206 | — 9 433 |
| II. *Interest and Dividends* | + 6 734 | + 4 101 | + 3 453 | + 4 484 |
| III. *Other Services:* | | | | |
| Shipping | + 6 523 | + 6 309 | + 6 546 | + 6 392 |
| Ships' stores and bunkers and port fees | + 789 | + 789 | + 928 | + 979 |
| Immigrants' and emigrants' funds and remittances | + 1 841 | + 999 | + 567 | + 567 |
| Tourist traffic | + 210 | + 158 | — 154 | + 567 |
| Other items | — 631 | — 421 | — 722 | — 309 |
| Total | + 8 732 | + 7 834 | + 7 165 | + 8 196 |
| IV. *Gold* | + 368 | — 2 261 | + 4 021 | — 3 247 |
| Grand total | + 5 050 | + 8 885 | + 14 433 | ± 0 |
| *Capital Items:* | | | | |
| Long-term | + 6 523 | + 2 892 | — 2 474 | + 1 134 |
| Short-term | — 11 941 | — 13 092 | — 12 681 | — 2 320 |
| Total | — 5 418 | — 10 200 | — 15 155 | — 1 186 |
| Corrections | + 368 | + 1 315 | + 722 | + 1 186 |

## CONSTITUTION OF THE DELEGATIONS FOR THE PROMOTION OF ECONOMIC CO-OPERATION BETWEEN THE NORTHERN COUNTRIES.

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